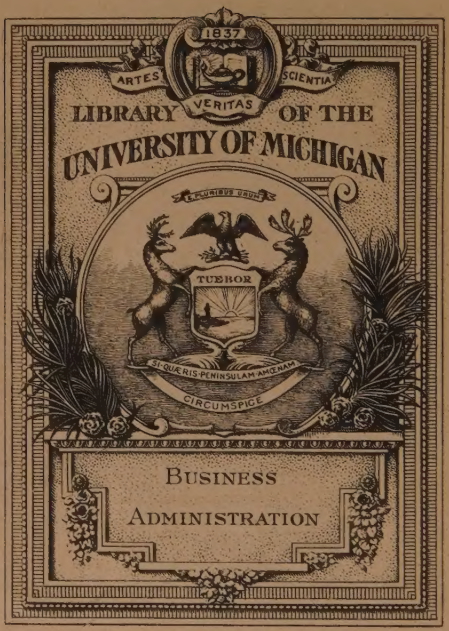
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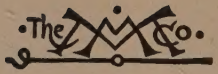

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STEPS IN INDUSTRY

BY

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TO
THOSE WHO WORK IN INDUSTRY
AND WHO WISH
THROUGH MORE INTELLIGENT COÖPERATION
TO MAKE POSSIBLE A
HIGHER STANDARD OF LIVING
FOR ALL OF US

FOREWORD

Until recently the science of economics has been almost a closed book to most of those who work for their living in industry. Yet these are the people—all of us—about whose activities this science is supposedly written, and the satisfaction of whose daily wants creates and serves to explain all of our industrial problems.

In earlier centuries all the sciences were clothed in mystery, due to the general ignorance which prevailed. The secrets of medicine and the law were jealously guarded from the layman. A little knowledge was supposed to be a very dangerous thing. Likewise, the earlier writers on the subject of political economy frequently concealed their thoughts from the majority of people by the use of unnecessarily technical language and the introduction of involved discussions and hairsplitting arguments.

Unfortunately, there are still in our institu-

tions of learning many teachers of the subject who question whether the subject of economics —which should in reality be thought of simply as a clear explanation of the *principles which govern our wealth-getting and wealth-spending activities*—can be made understandable to the average man about whom the science is solely concerned.

With this attitude the writer has never agreed. It would seem that the essential principles of any social science can be made reasonably clear to any mature person who has intelligence enough to do an honest day's work in our complicated industrial community, and to those young people with at least a common school education who are preparing themselves for the lifelong task of making a living. *What our science has probably needed is fewer words and more heart.*

The author can scarcely remember the time when he was not working for a living, whether on the farm, in the factory, or in other pursuits. During these early years he was continually asking the question "Why?"—and frequently there was no one to give the answer. During many years of experience in academic life as a

teacher of economics in all its branches, both theoretical and applied, he sincerely tried to make clear to his students some of the principles which to most people have seemed to be unduly befogged, either through ponderous and excessive technicalities and abstractions, or, on the other hand, through too superficial and popular treatment which has ignored fundamentals.

The material in this book was originally prepared solely for the possible interest and benefit which it might have for many thousands of the author's fellow workers in one of our country's greatest industries. Each chapter has been written at odd moments as other duties might permit. But this work of service would probably never have been done had not one of the author's friends, who is an outstanding figure in the business life of the present century, said that the proposed task of popularizing the subject of economics for the benefit of the *average man in industry* could not be accomplished.

Only a small beginning has been made. Whether or not the job has been worth while, the author will gladly leave to the judgment of

those for whom these articles have been written—the workers in American industry and those young people who are preparing themselves for careers of usefulness.

It is hoped that brevity and attempted simplicity of expression have not robbed this work of some scientific value, and that the author's erstwhile associates in academic circles will not conclude that he has overlooked the many complexities of the subject because for present purposes these have been largely ignored.

We can handle our jobs with more skill and more courage if we try to know the reasons for things, and if we understand the real part which each of us performs in this great business of making a living.

"As a man thinketh in his heart, so is he." It is hoped that the pages which follow will be of some aid in helping us all to think straight on some of our vital industrial and social problems, so that we may do the day's work with more zest, and may coöperate with increasing good will, born of a clearer understanding of our mutual problems.

Acknowledgment is made of helpful suggestions received from the author's co-workers,

and particularly of the coöperation of Mr. W. O. Scroggs, a former associate, who assisted in the preparation of a number of the earlier chapters.

EDMOND E. LINCOLN.

New York City,
August 14, 1926.

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STEPS IN INDUSTRY

STEPS IN INDUSTRY

I

ON MAKING A LIVING

When most of us were very young we used to read or listen to stories about people who were told by a kind fairy that they could have whatever they wished. There are many such stories, but they all end the same way. The people thus rewarded were never satisfied. The more things they got, the more new things they wanted.

Now we are all more or less like the folk in these stories. We don't seem to be able to satisfy all our wants. As soon as one of them is filled a new one, or several new ones, will begin to demand attention. Men today are always striving for more and better things. If they ceased to do this all progress and improvement would immediately stop, and that would be a bad thing for the world.

If we think about this for a moment we shall see that *the man who wants the least is almost*

always the one who has the least. There are a few who are completely satisfied if they can get a daily "hand-out" and a dry place in which to sleep. We call them bums or hoboes, and the chief difference between this class and the men who have homes of their own, with flower gardens and motor cars, is a difference in the number and variety of their wants.

When we undertake to satisfy our wants we call it *making a living.* We cannot take care of even our simplest wants without putting forth some effort. This means that we cannot live without work, and the more wants we have the harder we will strive to provide for them. That is why the man with a home and family is a better worker and a better citizen than the jobless bum.

If we look into the matter a bit further we shall see that it is almost impossible for a man nowadays to earn his living wholly by his own efforts. Suppose, for example, he takes a job in a factory making electrical machinery. He cannot earn his living there without the assistance of his employer and his fellow-workmen; but that is not all.

His job also depends on the mining of cop-

per in South America, of lead in Mexico and our western states, and of coal and iron in Pennsylvania, as well as the production of silk in Japan, the growing of rubber in the East Indies, and the raising of cotton in Texas. In short, our factory worker earns his living by working with people on nearly every continent of the globe and even on the high seas.

Yet we have lost nothing by becoming so dependent on other parts of the world. The ability of industry to draw the best things from every quarter of the globe for our own use enables the average wage-earner today to live better than kings and princes did two hundred years ago.

Such things as sugar, coffee, and tea are now found on every breakfast table, but before the days of modern industry they were only occasional luxuries for royalty and wealth. Even a generation ago very few homes possessed such conveniences as running water, electric lights, and telephones. Today these are considered necessities in every village and also in many farmhouses.

Here, then, are two things for us to remember:

(1) *We have more wants and can satisfy them better than our ancestors did;* (2) *we are able to do this because of the highly complex organization of modern industry.*

II

WHAT IS WEALTH?

MANY years ago some Arctic explorers encountered a band of Eskimos who had never before seen white men. The visitors offered them money for some of their trinkets, but this was spurned. Then one day these simple folk saw one of the explorers use a needle and thread to mend his clothing. They were filled with wonder at this operation, and were willing to part with their most prized possessions for a few needles.

Silver coins meant nothing to them. There was no place where they could spend them and nothing that they could buy with them. Thread and needles, however, meant a great deal to a people who had always been compelled to fasten their fur garments together by using a bit of sharpened bone and strips of rawhide.

This little incident throws much light on the question of the real nature of wealth. To many people the word *wealth* suggests merely a big

amount of money; but the stock of money in this country is really a very small part of our total wealth.

Vastly more important than our gold and silver coin and our "greenbacks" and "yellowbacks" are our farms, mines, factories, railways, steamships, warehouses, office buildings, dwellings, and schools. If we didn't have these things our money would be of little more use to us than it was to the Eskimos we were just talking about.

Very few people care for money for its own sake. We sometimes read of misers who live like beggars and bury a large quantity of money in the ground. They love money just because it is money; but fortunately there are not many people of that sort in the world.

Most of us want money for the comforts and satisfactions that it brings. We want it first of all so that we can provide ourselves with food, clothing, and shelter. After that we want it so that we can acquire a certain amount of culture, enjoy recreations, and provide something against a "rainy day."

Our greatest wealth, then, consists of those

goods and services which we can get in exchange for our money.

The total wealth of the United States is estimated to have a value of about 350 billion dollars, while the total amount of our money in circulation is less than 5 billion dollars. So if anyone had all the money in this country he would be able to buy up only a seventieth part of its real wealth. Moreover, the larger the quantity of goods in the world, the more we can buy with a given amount of money.

We should think of money merely as a tool to help us produce or acquire things that will satisfy our wants, and we should think of wealth as consisting not only of gold and silver but also of all the other things to which we attach *value.*

We attach value to things only when they satisfy our wants. The Eskimos attached no value to coins, because the white man's money could satisfy no wants in the frozen Arctic.

We cannot increase our total wealth simply by putting more money into circulation. If this were so, Russia and Germany in recent

years would have become the richest countries in the world, but as we know they actually became bankrupt.

The only way to make a country really richer is to produce a larger quantity of useful things.

III

WORK AND TEAM WORK

One of the most impressive things about a big football game is the way in which a group of men have been trained to act as a unit. We call their ability to act together "team work."

We know that it takes a great deal more than just eleven husky young men to make a team. There must be an experienced coach to train the players, to select the best man for each position, and to determine the sort of strategy that the team as a whole can follow to the best advantage.

No one expects the coach in the practice games to get into every scrimmage, to tumble around on the muddy field, or to receive as many knocks and bruises as the members of the team. But that does not mean that he is loafing, or that his job is a "snap." Unless he is in a position where he can observe and direct the work of each man he can never train the eleven to act as one.

It takes two kinds of work to develop the team. What the coach does before the big game is hardly known to the outsiders, but we all know that without him the team would quickly go to pieces, no matter how much skill each individual player might possess.

What is true in football is true also in business. There must be planning and direction as well as execution. Many years ago, when most business organizations were small, both kinds of work might be done by the same man. This was true, for example, when a cobbler made a single pair of shoes in his small shop.

In a modern shoe factory thousands of men are employed. With the same amount of labor and money invested in equipment, the quantity of shoes produced is enormously greater, because each worker develops special skill by doing only a small part of the work involved in the production of a pair of shoes. Each job, however, is vitally important. There must be somebody, then, to plan and direct the various operations so that the greatest amount of product can be secured with the least expenditure of effort.

That person corresponds to the coach of the

football team. He develops "team work" in the factory. He plans ahead, organizes his forces, and directs activities. He bears the whole responsibility if things go wrong. A single error of judgment on his part may result in losses of many thousands of dollars and the throwing of hundreds of people out of employment. Such a job evidently is no more of a "snap" than is that of the football coach.

"Team work" in business means complete *coöperation* among all the different groups of employees. Without this coöperation a business concern would be as ineffective as an uncoached football squad or one containing several one-legged players.

In a well managed industry all members of the organization are really indispensable to one another, no matter what their relative position may be. It is only through the coöperative action of each worker from the president or general manager to the office boy that the final product can be perfected and made available for our use.

A man may swing an axe in the forest or he may dictate letters in a skyscraper office building; but in either case he is a real worker if his

efforts contribute to the satisfaction of human wants.

Work, then, is any kind of physical or mental activity directed toward the production of goods and services which satisfy our wants, and for an end other than the mere satisfaction to be derived from the effort itself.

IV

WHO ARE THE REAL PRODUCERS?

Producing wealth means a great deal more than merely "making money." The professional gambler "makes money," but he produces no wealth. What he gains somebody else must lose, and the world at large is consequently poorer rather than richer because of his activities.

Again, when we speak of a man as a producer we do not necessarily mean that he has created something where nothing existed before. We cannot create new matter. We can only give new forms to material, change its place, protect it from damage, and keep it until it is needed.

When we do these things with the purpose of satisfying human wants we are producing wealth. *Everybody, then, engaged in a useful occupation is in one way or another a wealth producer.*

Perhaps we can bring out this principle more

clearly with an illustration. A fish swimming in the sea satisfies nobody's wants. No man in his right senses would try to buy or sell such a fish; but when it is caught and hauled safely aboard a boat the situation is completely changed. The fish then becomes a form of wealth; it is then capable of satisfying man's wants. When the fisherman made this catch he produced wealth. He did not, however, produce a fish; he only changed the place of one.

Again, the fish gained still more want-satisfying power when it was brought to port. A second change of place thus resulted in a further increase in wealth.

From the waterfront the fish was taken to a more accessible market, where it was packed in ice. Then it was sent to a restaurant, where it was cleaned and kept in a refrigerator until some customer ordered fish for dinner.

In each of the steps between the sea and the dinner table something was added to the power of a commodity to satisfy wants, and its *value* was consequently increased. Everybody who had anything to do with these various operations was a producer. He was adding a bit to the world's wealth by changing the place or the

form of a thing, and keeping it till it was needed.

The principles noted in this simple case hold true also in the most highly complicated operations of modern business and industry.

Manufacturers produce wealth by changing the form of raw materials, so that they will satisfy a greater number of wants. Railroads produce wealth by changing the place of goods —by moving them to points where they are most wanted. Merchants produce wealth by laying in stocks of goods in advance of their customers' needs and keeping them till they are wanted.

It is sometimes said that labor is the only real producer of wealth. But modern industry requires much more than a pair of willing hands.

Somebody must *save.* Machinery must be made and installed and raw materials must be bought before our labor can produce a sufficient quantity of goods to make civilized people reasonably comfortable.

Wages, also, must be paid even before the products are sold and even though they may be sold at a loss.

Without the coöperation of other producers,

therefore, and without the constant use of the products of past labor, the work of all of us would be futile and ineffective, and the advantages of modern civilization would be unknown.

The real producers are those who add something to the sum total of human satisfactions. One man may do this by chopping wood, while a second man does it by writing a poem, and a third by managing a great railway system.

V

THE DIVISION OF LABOR

If we should try to produce with our own labor alone all the things that we use every day we should find ourselves quite helpless.

It is hard to imagine what sort of house we should be living in if we had to construct it and prepare all the materials that go into it wholly by our own efforts, or what sort of food and clothes we should have if we had to produce these things with no help from the rest of the world. Under such conditions we should be little better off than beasts.

Because of the desire for better living, men in past years came to follow different occupations—one became a carpenter, another a weaver, and still another a baker. After this specialization took place people had better houses, better cloth, and better bread, and they also got these things more cheaply and quickly than before.

In modern countries this process of the divi-

sion of labor is carried still further. Perhaps the following well known example will illustrate the point:

Adam Smith in his celebrated book, *The Wealth of Nations,* first published about 150 years ago, gives an interesting example of the effectiveness of the division of labor in so simple a business as the making of ordinary brass pins. After showing that 10 people, each specializing in certain portions of the work, were able with only the crudest kind of machinery to make 48,000 pins in a day, he says:

"But if they had all wrought separately and independently, and without any of them having been educated to this particular business, they certainly could not each of them have made 20, perhaps not one pin in a day; that is, certainly, not the 240th, perhaps not the 4,800th part of what they are at present capable of performing in consequence of a proper division and combination of their different operations."

About 120 years later a survey was made by the United States Commissioner of Labor, in which it was shown that further improvements in machinery in the manufacture of common pins, made possible through a better division of

labor, had resulted in 90 times greater efficiency than the improved hand method just described by Adam Smith. In other words, the division of labor and its results have finally enabled one worker to produce between 21,600 and 432,000 times as many pins as if he had continued to work alone!

This is a true case, and equally striking examples in other fields of industry might be mentioned. The *division of labor*, made possible by the coöperative action of many people, has resulted in such advantages as the following:

1. When a workman concentrates on a single operation he acquires greater skill than he would if he devoted only part of his time to it.

2. Moreover, when one man did all the work on such an article as a shoe, for example, part of his tools were always idle, and he lost time in frequently changing from one set of tools to another. With the division of labor in a modern factory this loss is eliminated.

3. Again, the division of labor makes it possible for different types of workers to obtain the kind of work that suits them best, and society benefits enormously from such an arrangement.

4. The greatest benefit, however, comes from the incalculable increase in all kinds of enjoyable goods that results from the specialization of work and the use of modern machinery. In fact, practically none of the important work of civilized society could be carried on without the division of labor.

These improvements have been of immense benefit to the worker. They have shortened the working day and have greatly bettered the conditions under which the individual performs his task. Also, a large amount of labor has been set free for the production of new desirable things, of which otherwise we should have to deny ourselves.

As a result, the average man now enjoys many comforts and luxuries which even the wealthiest a generation ago were unable to obtain.

VI

MAKING GOODS MORE PLENTIFUL

Most of us can remember as far back as twenty years ago, and a few moments of recollection will bring to mind the amazing increase that has taken place during this time in the amount and variety of goods within reach of the average individual.

Twenty years ago there was only one automobile for every 2,000 persons; now there is one for every six persons. In 1910 we were amazed to learn that approximately a thousand phonographs were made in this country every day; yet by 1920 we were producing over 7,000 a day. Since then the phonograph has been supplemented by the radio, and the rapid increase in the number of radio sets has been even more striking.

All this goes to show that the productivity of our industries has been increasing much more rapidly than our population. This means

that there are now more goods available for the use and enjoyment of the average man.

Along with this increased output and greater abundance of desirable goods there is now much more time available for their enjoyment. In the past twenty years the average length of the working day in representative industries has been shortened from one to two hours.

This increase in both leisure and luxuries has been made possible by *improvements in production.*

In George Washington's time the methods of raising materials for food and clothing were so crude that most able-bodied workers had to be tillers of the soil. About nine men out of every ten were then farmers. Today only about one man in three or four is a farmer, and not half our population lives in the country. Yet we are not suffering from lack of things produced on the farms. On the contrary, for part of the time since the Great War our farmers have been raising more than could be readily consumed.

Moreover, the output of our farms has improved in quality as well as in quantity. Better live-stock and better fruit and potatoes are

raised now than a generation ago. Such progress has been accomplished by more scientific methods of production, including the use of modern farm machinery and fertilizers.

Many other lines of industry have shown even more rapid progress. The important fact in all this development, however, is the great contribution it has made to everybody's comfort and welfare. Many of us can recall the time when running water, bathrooms, telephones, and electric lights were deemed luxuries even in the larger towns. Today these things are regarded as necessary to comfortable living in both town and country. The use of the automobile is rapidly converting country roads into paved streets.

This progress has not been confined to material things. Today the general opportunities for culture and advancement are more widespread than ever. In 1920 there were ten times as many children attending high school as thirty years before, and there were twice as many children in all schools as there were only ten years before.

Men produce more when they work together for a common end, with each one specializing

in the line which suits him best; and where more is produced there is more to be consumed.

Modern industry, therefore, by bringing about specialization and coöperation, has effected a vast improvement in the well-being of every one of us.

VII

LARGE PRODUCERS AND SMALL PRODUCERS

One frequently hears a good deal of loose talk about "big business" and "monopoly." However, it is literally true that probably not *one per cent* of all manufacturing and trading concerns in the United States could by any stretch of the imagination be called "big." There are very few establishments which produce more than a very small percentage of the total output of a particular industry.

The keenness of competition during recent years has made it increasingly difficult for any business, whether large or small, to survive unless it performs a real service to society. There must be good reasons, therefore, why some producers are large and others small.

When the owner of an automobile wants a few repairs made on his car he does not ship it back to the factory. That would be expensive and would deprive him of the use of the car for

several weeks. What he does is to drive around to a garage, a place that is altogether different from the one in which the car was made. Where there is one man employed in the garage, there are a thousand or more at work in the factory.

There is a reason why the factory is large and why the repair shop is small. Our cheapest and most widely used automobile is made in a group of establishments employing more than 100,000 workmen and producing about 7,000 cars a day. Suppose that instead of one company making 7,000 cars a day there were a thousand independent producers turning out seven cars each per day. Everyone can see at once that the small establishments would not be able to manufacture cars so cheaply as the large one, for such reasons as the following:

1. The big plant can use highly improved machinery which the smaller plants cannot afford to buy.

2. It can buy materials in larger quantities, and, therefore, at better prices.

3. These materials and also the finished products can be shipped in carload lots, with a saving in freight rates.

4. Through constant experiments and scien-

tific planning, impossible in a small factory, improved methods and processes can be developed, leading to lower costs and ultimately lower prices to the consumer.

5. The larger plant, by employing large numbers of men, can place each worker in the job for which he is best fitted; his labor can thus be directed most effectively, with a resulting increase in *real* wages.

In these various ways the big producer may enjoy an advantage over the smaller one. On the other hand, if the big automobile plant undertook to repair cars instead of to make new ones, it would be at a disadvantage as compared with the small shop. In repair work no two jobs are exactly alike, and so the operations cannot be *systematized* as in the factory. It is also necessary for repair shops to be conveniently near the car owners, and consequently there are many small ones scattered all over the country, instead of one large central plant.

We see, then, that for some sorts of work the small establishment is best, while for others, the big factory seems to have come to stay. The knitting mill of today has made useless the long needles that our grandmothers used to handle

so skilfully; but nobody would think of establishing a factory to darn socks. That is still a small-scale job, to be done in the household.

Sometimes we find the same sort of work performed equally well by both large and small establishments. In our cities the great department stores and the small retail shops exist side by side, and both may enjoy a satisfactory trade. Evidently the small merchant is rendering the community a *useful service,* or he would not be able to face the competition of his big neighbor.

When we see great industrial concerns developing, like the Ford Motor Company or the United States Steel Corporation, we may be sure that there is some good reason for their growth. They could not expand and prosper in their highly competitive business unless they were *efficient.* That is, *they must render the same service as their competitors at a lower price, or they must give better service at the same price.*

In like manner, where small industrial establishments are the prevailing type, there must be sound reasons for them also. They may render some specialized or more personal serv-

ice, impossible in larger concerns, or their operations may be of such a nature that extensive machinery is unnecessary. Local conditions also frequently influence the size of an industry.

The size of a business, therefore, is something that usually takes care of itself.

In every line of business, competition and the demands of the consumer eventually determine which type is to survive, and whether the factories and units of management shall be large or small, or whether there is a place for both large and small plants in the same industry.

VIII

SAVING AND CAPITAL

We have seen how wealth is produced; let us now see how it is used. If we make a list of the various articles in every-day use, we shall find that some of them are employed for the immediate and direct satisfaction of our wants, while others are employed to create more wealth. The first group is sometimes called *consumers' goods* and the second group *producers' goods.*

The food that we eat, the clothes that we wear, and the homes that we live in are consumers' goods, while the tools or machinery with which we work, the stocks of goods that we sell, and the stores, offices, or factories where we work are producers' goods. The latter satisfy our wants only in an indirect way.

All such producers' goods as those just enumerated are forms of *capital.* We may define capital *as material products of past industry used for the further production of wealth.*

Some people, however, think of capital in a different way. They confuse it with money, probably because business men have a habit of using the dollar mark to indicate the amount of capital they employ in their enterprises. When a manufacturer, for example, says that his capital is $200,000, he means that this is the value of his plant. His real capital consists of a building, machinery, and raw materials rather than of so many dollars.

When capital is used to produce further wealth it is always employed in connection with land and labor, and these three are called the *factors of production.* Capital produces nothing of itself, and yet without it very little can be produced. Even the savage has his capital in the form of bow and arrow, spear, and dug-out canoe to aid him in his hunting and fishing.

There is a wide gap between these crude implements and the highly specialized instruments of modern production, but the same principle governs the use of both. *Capital increases the productivity of land and labor.* The bow and arrow make the labor of the Indian hunter more productive than it would be if he tried to capture his game barehanded, and the modern

rifle makes the labor of the hunter still more productive.

There is only one way to create capital, and that is to consume less than has been produced. Capital, therefore, is the result of saving. It is some form of stored-up wealth. We have our vast aggregations of capital today only because most people have lived within their incomes.

In this way alone can either an individual or a nation become wealthy. The American people are often called extravagant, and yet they produce every year far more wealth than they consume. As a result our nation is steadily growing richer—that is, *general well-being is increasing.*

And here is another important fact for us to remember. Because we have saved in the past and have this large stock of stored-up wealth, we now have more goods available for our immediate satisfaction. In other words, our past saving enables us at present to produce more, to consume more. and also to save more than ever before.

If we should stop saving, the average individual would slowly but surely grow poorer year by year, because population would then increase

faster than our wealth. We would finally turn back to a state of barbarism.

We have immeasurably increased our well-being by refraining from consuming all that we produce, and our *further progress depends on the ability of the present generation to postpone some of their present satisfactions for the sake of a future gain.*

IX

PUTTING CAPITAL TO WORK

When a steamship takes on coal in a Chinese or Japanese port the fuel is passed up the side of the ship in baskets by a long line of coolies standing shoulder to shoulder. Scores of men and women toil at this dirty work from dawn to dark, and their day's wages are less than an hour's pay for unskilled workers in this country.

When the ship reaches San Francisco the method of fueling is entirely changed. Coal is then put aboard more speedily by half a dozen men operating a steam hoist or endless chain of metal buckets. In the American port a few men with a large equipment of capital goods do the same work that in the Orient is done by many men and a very small amount of capital.

In the countries of the Far East labor is plentiful and cheap, while capital is scarce. In this country the situation is reversed, and it would

be a great waste of resources to employ workers in merely passing coal baskets from hand to hand. It is doubtful, too, if many of them would stick long to such a tedious job.

Where the workers are intelligent and standards of living are high, it is profitable to use a large amount of capital in combination with labor. That is why capital in the form of machinery is used to a greater extent in this country than anywhere else in the world. Since this machinery increases the output of the average worker, the employer can afford to pay him more than would otherwise be possible. As a result, wages in this country are also the highest in the world.

But capital does not produce these results automatically. If it is not put to work in the right way it may lead to great loss and waste, instead of to a larger product and a larger income for the workers.

The men who put capital to work must be able to plan years ahead. They must know what they can afford to pay for the use of capital and the exact amount that they can use to advantage. They must estimate what future demands will be. And *before they can know*

these things they must understand the business from "A" to "Z."

Great numbers of business concerns have failed because the men who put their own or borrowed capital to work lacked sufficient knowledge with regard to one or more of these important points.

While capital, therefore, performs a vital function in modern life, it will not do this unless it is properly directed. Under efficient management it will provide a great abundance of useful goods and give multitudes of people a way to earn their living. Under inefficient management it may be gradually exhausted by wasteful methods.

Intelligent, alert, and competent managers are, therefore, absolutely essential to the welfare of the modern worker. Such men are well called "captains of industry," and their services are invaluable.

Just as an army of brave soldiers cannot win victories if its generals are stupid, so a corps of able and faithful employees cannot bring prosperity to a business if its executives are not "on the job."

Business in these days is a highly complicated

affair. Machinery is elaborate and costly; markets are world-wide, and competition is severe.

A very slight difference in the efficiency of use of capital in two competing establishments may determine which of them is to survive. *The difference of a fraction of a cent in the cost of producing an article may mean success or failure.*

X

THE MAN WHO TAKES THE RISK

Every man who goes into business for himself must take certain risks. This is as true of the newsboy on the street as it is of the owner of the big department store before which the newsboy stands and hawks his papers. A spell of bad weather would mean poor business for both.

But this is only one example of the many kinds of risks which must be faced. Modern business, with its world-wide markets, its large industrial organizations, and its minute division of labor, has greatly increased the amount of risk that somebody must assume.

If we return to our previous illustration of the village cobbler, we shall see that the risk he took, when he made a pair of shoes to his customer's order, is quite trivial compared with the risks assumed in the modern business of manufacturing and selling shoes. Today the materials for millions of pairs of shoes must be

bought, and the shoes made up and distributed in advance of actual demand from customers.

Along the line, from the raw materials to the finished goods in the hands of the last buyer, it is necessary for a number of people to take heavy risks. No manufacturer knows just what his competitors are doing. He and they together may overstock the market, and this would result in price cutting and a loss of profits. Again, while the goods are being manufactured prices may break so sharply that the shoes will have to be sold at less than cost.

There is also the risk from sudden changes in style, which make it difficult to market goods that are not in accord with the latest fashion, no matter how good their quality.

Some manufacturers succeed in reducing the risks of their business by making up goods only to order. This, however, merely means the passing of the risk to some one else, usually the wholesaler or the retailer.

These dealers also try sometimes to "play safe" by buying in small quantities and frequently duplicating their orders, thus forcing the manufacturer to assume part of the cost and risk of carrying stocks of goods.

The important point in all this is that somewhere along the line of production and distribution somebody must bear the risks incident to carrying on business. The value of such a service to business is not often fully appreciated. Without this means of relieving manufacturers both of the burden of finding consumers for their products, and of the risk of carrying large stocks of goods until they are wanted, business would move at a much slower pace and our wants would not be nearly so well satisfied as they are at present.

One group of risk-takers buys raw materials and stores them at convenient points where manufacturers may obtain them as needed. They supply farmers, too, with facilities for the prompt disposal of their grain, cotton, and wool at any time they desire to sell. Small offerings by individual farmers are thus collected and made ready for the manufacturers at any time they wish to buy.

Such dealers form a connecting link between producers of raw materials and manufacturers on the one hand, and between manufacturers and consumers of finished goods on the other. They share the risks of business, find a market

for the producer, study the consumer's needs, and undertake to satisfy his wants.

These are highly valuable services and the more rapidly industry expands the more valuable and indispensable such men become. Those who perform such services, involving a high degree of risk, are *real producers,* and are entitled to their reward along with others engaged in equally useful though different occupations.

XI

SHARING THE RISK WITH OTHERS

IDLE capital is no more productive than an idle man, and yet many owners of capital are not in a position to employ it in business for themselves. They can put it to work only by entrusting it to others.

At the same time, many men who have the ability to use large amounts of capital for the advantage both of themselves and of their communities do not possess sufficient funds of their own to enable them to engage in business without assistance. They need somebody to give them the necessary financial backing.

One way in which a business man may get such assistance is through his bank. When the bank makes him a loan, it shares for the time being in the risks of his business. A bank, however, cannot afford to tie up its depositors' funds for an indefinite period. The loans which it makes must usually be repaid at the end of a few months.

Business men frequently need these short-term credits, but they also need capital that will be invested permanently in their enterprises. The manufacturer, for example, must have the permanent use of funds to enable him to invest in a tract of land, erect a building, and install machinery. He cannot depend on his bank to finance these operations.

One way by which he may get the permanent use of more capital is to form a *partnership* with one or more persons who have ample financial resources and who are willing to share in the risks and profits of his business.

The partnership possesses many advantages over the one-man concern. It not only provides a larger amount of capital, but it permits specialization in management. One of the partners, for instance, may look after production, and another may give his entire attention to sales, each doing the work for which he is best fitted.

But the important business units today are no longer the one-man concern or the small partnership. Our manufacturing, mining, and railway companies have attained huge proportions, and they require millions of

dollars where formerly a few thousand would suffice.

The largest steel company in the United States employs nearly two billion dollars of capital in its operations. No man in the world is rich enough to own it, and, even if there were such an individual, it is hardly probable that he would be willing to invest his entire fortune in a single undertaking.

This great business concern, therefore, has obtained its capital from the investments made by more than a hundred and fifty thousand people in stocks and bonds. This large army of investors share in the risks as well as in the earnings of the business. So long as the company prospers they will receive their dividends and interest. If it should meet with financial reverses, the stockholders, who are the owners, might have to do without their dividends.

The number of people who are thus individually assuming a small part of the risks of business in this country by investing their surplus funds is not definitely known, but is rapidly increasing. Probably four or five million is a fair estimate.

This wide distribution of ownership and con-

sequent risks call for constantly better management and more intelligent workers.

Without this willingness on the part of millions to share in the risks of modern business, it would be impossible for us to enjoy the abundance of useful goods of all kinds which large-scale production, utilization of machinery, and division of labor have made possible.

XII

THE CORPORATION AS A STAGE IN INDUSTRIAL PROGRESS — SIGNIFICANCE OF RECENT CHANGES IN CHARACTER OF OWNERSHIP

In a previous talk something was said about "Sharing the Risk With Others," and it was pointed out that only by "coöperation" in *investment*—that is, by wide distribution of ownership—as well as by coöperation in *effort,* can we reap the advantages of modern civilization.

Most large business undertakings are now organized as "corporations," operating under a legal authorization known as a "charter" or "certificate of incorporation." This authorization is granted by the state upon compliance with certain conditions, and confers upon the corporation the right to exist and to do certain things as a legal "person" responsible for all its acts. The persons who associate themselves together in this way are the *stockholders,* or owners.

Some of the distinguishing features of the corporation as a form of business organization, which may also be regarded as advantages, are the following:

1. The corporation is *permanent,* unless dissolved by its owners or voluntarily limited in duration by its charter. Its activity, therefore, does not depend upon the life or ownership of any particular individual.

2. Because of the comparative ease with which ownership in the average corporation can be acquired or transferred, large-scale operations are facilitated and flexibility in financing is assured.

3. In many cases it is probable that a business organized as a corporation has a superior opportunity to secure efficiency in management.

The corporation is controlled by its owners, the *stockholders,* whether many or few. If there are only a few of them they may elect themselves directors once a year and personally run the business. When there are many stockholders, however, those holding the majority interest usually select prominent business men who have experience to act as directors for them.

Although the directors decide general policies

at their regular meetings, they are legally acting as agents of the stockholders and may be dismissed if the majority stockholders do not approve their policies.

The larger a company grows, the more impossible it is for the directors to familiarize themselves with all the details of the company's operations. Hence, they appoint a president and frequently other senior officers, who are not necessarily members of the board of directors. These in turn appoint and employ all other assistants and workers.

In past years one of the important and not infrequent disadvantages of large corporations has been the natural tendency toward "absentee ownership"—that is, the more important stockholders have frequently been largely dissociated from the actual management and operation of the business, and have exercised their control in an indirect and more or less impersonal manner.

The dangers in such a situation have been pointed out by forward-looking business men and economists during the past 150 years. In a word, these disadvantages in the earlier days were perhaps due to an over-emphasis of rou-

tine methods and organization practices, the purpose of which was not made sufficiently clear to the average employee. As a result, unnecessary misunderstandings sometimes arose, and individual initiative was not always properly directed.

However, changes in the character of ownership of corporations have been taking place very rapidly but quietly during the past decade. The number of stockholders of all corporations has vastly increased, and the average number of shares per stockholder has decreased.

It is even more important to note that this extension of ownership, particularly in our great public utility enterprises, is due primarily to the fact that *customers* are investing their money in the corporations which serve them, and *employees* are buying stock in the corporations for which they work.

This means that those who produce the service and those who consume it have a very direct and mutual interest in seeing that money and effort are expended in such a manner as to produce the best results. It means, further, that those who are employed by corporations, from office boy to president, are becoming in a very

real sense *partners* in business together, since each *owns* a portion of the business.

This ownership interest is not merely a privilege, but also a *grave responsibility.* Every stockholder should understand that as an owner he has duties to perform as well as dividends to collect. The more intelligent the performance of his duties, the higher in the long run will be the dividends which he receives.

An employee-stockholder can render his best service to his company, and thereby to himself, by understanding thoroughly his own work in relation to the work of his associates, by getting a clear picture of what the policies of his company are, and also what they should be, and giving that constant thought to his work which will enable him to develop into a better job. Short of this no employee-stockholder should be satisfied.

XIII

WHAT MAKES GOODS CHEAP OR DEAR

All of us at times have probably wondered at the wide difference in the prices of many articles in common use. Why, for example, should a pound of butter sell for 60 cents, and a pound of sugar for only 7 cents? Why should a pound of raw silk cost $6 or $7, while a pound of raw cotton costs only 20 cents? Or why should a pound of gold be worth about 25,000 times as much as a similar quantity of pig iron?

These great variations are not accidental. There are good reasons for every one of them. If silk could be produced as easily and as cheaply as cotton, it would pay the cotton grower, at present price levels, to change his business and begin raising silk worms. The more enterprising growers would do so at once, and this would result in a larger supply of silk and a smaller supply of cotton. The outcome would be cheaper silk and dearer cotton, and eventu-

ally the difference between the prices of the two commodities would disappear.

Now, in actual practice nothing like this will happen. It requires comparatively little land, labor, and capital to raise a pound of cotton, but it requires a great deal of both land and labor to produce a pound of silk. This explains in part why silk is expensive and why cotton, in comparison, is cheap.

Likewise, an *ounce* of gold is now worth in our markets nearly as much as a *ton* of pig iron, and a good diamond the size of a pea can be bought only for the price of a fine automobile. The price of these various commodities or articles, under conditions of competition, is in the long run closely governed by the cost of producing them, and putting them in the consumer's hands at the proper time and place.

But this does not tell the whole story. *The cost of producing an article will have little effect on its price if the article is not in demand.* If silk should suddenly go entirely out of fashion, it might for a short time become as cheap as cotton, until the existing stocks could be disposed of. On the other hand, a rare gem may command a price which has no relation to the

cost of discovering and putting that particular stone on the market.

Sometimes producers make the mistake of turning out more goods of a certain kind than are immediately wanted. Under such conditions the price will be governed by the buyers' desire rather than by the cost of production; and, since there is an oversupply, this desire will not be very keen. In order, then, to get rid of their surplus stocks, the sellers may have to offer their goods at less than cost. We thus see two influences at work in determining prices at a given time—*the desire of the buyers and the cost to the sellers.*

If the unsatisfied demand for an article is keen and the cost of producing it is heavy, the price will be high. A high price, however, tends to discourage demand and to stimulate competition.

When the costs of production can be lowered by improved methods, it is possible for the producer to expand his sales and increase his profits, even though he offers his goods at a lower price. This principle has been well illustrated in the case of the automobile industry. The leading manufacturers have prospered not

by seeking the maximum profit per car, but by endeavoring to bring the price of cars within reach of practically every family, and earning a moderate profit on each sale.

Modern business has learned that the highest possible price is not the most profitable one in the long run, and *it is profits which make business prosperous.* The greatest financial rewards have usually come from rendering the greatest service, by selling a very large number of articles at a comparatively low price.

To sum up the principles involved in our discussion, those commodities, whether manufactured or existing in natural form, of which the supply is or can be made plentiful in relation to the demand for them, will tend to be low in price. On the other hand, those commodities which are limited in quantity, either because of necessarily high costs of production or because of natural scarcity, and which are very much wanted by people, will tend to be high in price. This is one way of stating the so-called *law of supply and demand.*

Competition tends to keep the selling price of a standard article close to the average cost of production; but if fashions change and de-

mands decrease, it frequently happens that selling prices drop below the point which will yield a fair profit to the producer. This may cause loss to many engaged in a particular industry and may result in shifting capital to other industries. This is one of the constant risks of business.

The important thing to remember is that the consumer—namely all of us—*perhaps unconsciously but none the less inevitably, determines how much profit shall be made in every industry, and to a large extent the price which he must pay for the goods which he consumes!*

XIV

GETTING GOODS TO THE CONSUMER

We save so that at some future time we or our descendants may have more of the necessities, comforts, or luxuries of life. This end can be attained only if production is increased. Goods are produced in order to be consumed. Bread is baked to be eaten; shoes are made to be worn, and pianos are made to be played. The final purpose of all industrial activity is *consumption,* or the *satisfaction of human wants.*

The modern tendency toward large-scale production and the concentration of different lines of manufacture in the best adapted regions ("geographical division of labor") has created a wide gap in time and space between the manufacturer and the ultimate consumer. This in turn has led to an apparently greater diversity of interests between different industrial classes.

A man in Iowa wears a suit of clothes made in Chicago out of cloth manufactured in Mas-

sachusetts from wool imported from Argentina and dyed in the yarn with materials brought from Germany. His necktie was made in New Jersey from silk brought from Japan, and his shirt was made in New York of cloth manufactured in England from cotton grown in Texas. Australian rabbits supply the fur for his Connecticut-made felt hat, and the material for his gloves may come from South Africa.

In order that this average citizen may go comfortably and neatly attired, producers of wearing apparel have drawn upon the resources of every continent on the globe.

To bring raw materials together from the four corners of the earth and produce the finished goods is only a part of the job. The product must eventually reach the consumer, or production will have to stop.

An elaborate system of distribution has gradually developed for the purpose of bridging the gap between the factory and the thousands of households whose needs the factory was created to supply. A few manufacturers for special reasons undertake to sell their goods directly to the consumer, but these are exceptional cases. As a rule finished goods pass through two or

three hands (*wholesalers* and *retailers*) before they are delivered to the person who intends to use them.

This is another illustration of the division of labor. There was a time when the man who made the goods sold them directly to the consumer. In modern times, however, the selling function has become highly specialized and is more or less separated from the manufacturing end of the business.

It is more economical for the factory to distribute its goods in large quantities. Hence, it sells to the wholesaler or jobber. The wholesaler is located at a point convenient for distributing the goods in smaller lots to retailers throughout his territory. The retailer in turn seeks a convenient location in some town or city for distributing directly to the people who will use the goods.

This system is really much simpler and also much less expensive than one in which every manufacturer tries to deal directly with the final consumer.

Let us consider the case of a factory producing a million pairs of shoes per year. Suppose it undertook to deal directly with the million

people who buy these shoes. This would involve the wrapping and addressing of a million separate packages, the keeping of records for a million separate transactions of only a few dollars each, and the employment of a large force of workers for these operations.

On the buyer's side the system would be equally troublesome. It would be impossible for the purchaser to get a good fit from a distant factory. He would not have a large assortment of patterns from which to make his choice as he does in the shoe store. Even if he were able to get satisfactory shoes by such a method, he would have to wait at least a week after mailing the order before the goods could be delivered.

If consumers had to resort to such methods to obtain the things which they need, many of their wants would go unsatisfied, production would be sharply curtailed, and the nation's wealth and income correspondingly reduced.

The cost of living seems high, and it is easy for any of us to jump to the conclusion that the prices which we pay would be much lower if we could deal more directly with those who produce our goods. It is true that through improved

methods of distribution substantial economies can be effected.

However, we should recognize the fact that *our own demands for service, quality, and style—many of them quite unnecessary and even unreasonable—are the chief cause for the present relatively high cost of distribution as compared with the cost of production.*

Yet, our standard of living is the highest that the world has ever known. The more advanced our civilization grows, the more value we put on *service* and *time,* with the result that the business of supplying us with the goods which we consume becomes generally more expensive if measured in dollars and cents.

On the other hand, if we measure the cost in hours of labor actually expended, we find that this indirect method of distribution is really growing more economical.

XV

WHY SO MANY LINKS IN THE CHAIN OF DISTRIBUTION?

It has been estimated that on the average about 50 cents out of every dollar which we pay for the ordinary commodities used by all of us goes to cover the "costs of distribution" in some form or other. It is easy to jump to the unwarranted conclusion that most of the costs so incurred are unnecessary and wasteful.

All of us have heard criticisms of the "middleman." He is sometimes charged with producing nothing himself, while gathering in what others have produced and thereby diminishing the income and well-being of the "real producers."

The politician often tells farmers and wage-earners that they are the special victims of the middleman, who stands between them and the consumer of their products and exacts a toll for the passage of goods over a road that otherwise would be free.

It is quite true that there are many unnecessary middlemen, and there are many wastes in distribution; but this is true, also, in all other types of industry. Every occupation contains a certain number of people who are misfits, or who are superfluous, and whose energy and capital are wasted. In some communities there are too many doctors, and in others too many lawyers or engineers or farmers.

This situation is not the fault of these various occupations. It is due to our system of free competition and to the bad judgment or the incompetence of those people who allow themselves to become square pegs in round holes.

Because there are some middlemen whom the world could well afford to lose, we must not assume that middlemen as a class are the unproductive group that they are sometimes alleged to be. It is true that the middleman stands between the producer and the consumer, and that he is rewarded for his activities. Instead of merely levying tribute, however, he may be rendering a highly useful and necessary service.

He helps both the producer and the consumer. He finds or creates a market for the goods of

the producer and at the same time tries to supply consumers with the goods which they want at the time when they want them.

While people are complaining of hot weather in August, the middleman is buying up stocks of heavy woolens, furs, and other apparel that will be greatly needed when winter comes. He not only anticipates consumers' wants, but stimulates new wants by displaying goods, advertising, and by other methods. He educates consumers to demand new goods and better qualities and thus helps to promote higher standards of living.

In doing these things, the middleman creates a wider market for the manufacturer, and *this means a greater volume of employment and higher wages for workmen.*

Few question the need for retail stores. Most of us think of the "wholesaler" or "jobber" when the term middleman is mentioned. It is easy to forget that the wholesaling function is one of the necessary results of our industrial development and consequent specialization. To make the matter clear, some of the more important functions performed by the wholesaler may be summed up as follows:

1. *Products are assembled* from various sources into a central reservoir from which distribution is made to suit the retailer's needs, both as to time of delivery and quantity of sale.

2. The *storing* of goods thus collected until they are sold is generally an important function, adding "time" as well as "place" utility to the output of the manufacturer.

3. *Grading, sorting,* and *selling* in *smaller lots* than could profitably be handled by an individual manufacturer, are definite functions of the jobber in some kinds of business.

4. Unquestionably, the wholesaler in many lines performs a definite function by *assuming risks of price fluctuation* and anticipating the needs of his customers.

5. It is probable that the wholesaler with his intimate knowledge of conditions among retailers and among producers helps to *stabilize both production and marketing.* This means lower costs to the ultimate consumer.

6. The wholesaler also helps to *maintain competition* by dealing with different producers. His competitive purchasing acts as a stimulus to lower costs. His buying power aids the retailer.

There are, of course, certain types of industry which can efficiently deal directly with the ultimate consumer, and there are certain types of goods which must as a rule be sold directly by the manufacturer to the retailer or consumer. Such cases, however, seem to be relatively rare.

The need for the wholesaler's services is found primarily in the distribution of what may be called "convenience goods" or "staples." Such goods have a ready sale in large quantities at frequent intervals in easily accessible stores.

On the other hand, (1) when the product is highly perishable, (2) when the goods are subject to rapid and frequent style changes, or (3) when the thing sold calls for special technical skill in the installation and operation, there is frequently a very good reason for dealing directly with the retailer or ultimate consumer.

As it happens, *many different methods of distribution are used, even in the same industry.* But even when the middleman may seem to be eliminated, the wholesaling or jobbing *function* usually continues to be performed, either by the producer, through separately organized distributing houses, or by the large retail purchasers,

such as chain stores, who buy in large quantities, store, distribute from a central point and assume risks ordinarily taken by the wholesaler.

The middleman can continue to exist only so long as he satisfies our wants and adds to the sum total of our enjoyment of goods and services. As long as he performs this function, he is a real producer along with all others who render want-satisfying services.

XVI

WHAT IS MONEY?

We carelessly speak of money, wealth, and capital as meaning the same thing. However, as a matter of fact, money should be thought of primarily as a "medium of exchange" and secondarily as a "standard of value"—provided the monetary unit is gold.

Money is not capital in the true sense, and it constitutes only a small part of the wealth of a country. *It is the unit in terms of which we measure the value of goods and services.*

Civilization, as we know it today, cannot exist without money. If we tried to carry on our daily work without a generally accepted medium of exchange, our activities would soon be paralyzed.

Of course, we do not live merely to make money, but if we had to take our wages in the form of goods instead of in cash, and if we then had to go to the trouble of swapping these goods for other things more greatly needed,

life to most of us would seem hardly worth the living.

An explorer in the interior of Africa, where money was unknown, once wished to buy a boat. He found a native who had one to sell, but who refused to exchange it for anything but ivory. Then he found another man who had some ivory to sell, but who would accept nothing for it but cloth. He searched further and found still another man with some cloth, but this one would exchange his cloth only for wire.

Fortunately, the explorer himself had some wire. So he swapped this for cloth; then he exchanged the cloth for ivory, and with the ivory he bought the boat.

Let us try to imagine the difficulties we should encounter today if we had to rely on barter of this sort in order to buy motor cars, tooth paste, theater tickets, and the hundreds of other things that we deem essential to our comfort and happiness.

History shows us that all people in the past, on reaching a certain stage of civilization, have abandoned barter and adopted some commodity as a general medium of exchange and a standard for measuring values of goods

and services. *Such a commodity became their money.*

In earlier times many things have served as money among different peoples. Cattle, hides, furs, salt, shells, beads, and arrowheads are among the objects that were frequently employed. For a time the early English settlers in Virginia used tobacco as money.

Experience has shown, however, that *the most useful substances for money are gold and silver.* Of these two, gold is especially suitable. As it is universally desired and very scarce, a small quantity of it has great value, and it is, therefore, easily carried about. It will not rust or tarnish, and so is highly durable and is readily distinguished from the baser metals. Every particle of it can be reduced to a uniform degree of purity or fineness, and it can be easily divided into small or large units. The amount produced each year is such a small fraction of the total supply that the value of gold is more stable than that of more abundant commodities.

All these characteristics make gold the best known substance for a medium of exchange and a standard of value, and for this reason the

money systems of the leading nations of the world have been based on gold.

No one has yet found a desirable substitute for the yellow metal, and every experiment in modern times with a money not based on gold has proved a miserable failure.

A sound currency is much more than a convenience. It is as necessary to modern economic life as coal is to a steam engine.

Macaulay, the English historian, says that during the seventeenth century bad money often caused more misery to his country in a single year than bad rulers caused in a quarter of a century. In the latter part of the eighteenth century, during the French Revolution, as well as during the American Revolution, immeasurable injury to the economic life of the people resulted from the issuing by the government of worthless paper money, which could never be redeemed in gold. Trade was brought to a standstill.

During the World War practically all the nations of Europe were compelled to abandon gold as their standard money. The losses and distress caused by the flood of almost worthless paper money produced suffering among the

masses of the people sometimes as great as that inflicted directly by the war. Some of these countries have recovered and are now on a gold basis; but it will be many years before a normal monetary and social condition is again seen in Europe.

It is well to remember in this connection that *when governments and individuals can lawfully pay their debts with money which is worth only a fraction of its value at the time the obligation was incurred, every thrifty and honest citizen suffers.*

XVII

HOW MONEY GETS ITS VALUE

From what we have now learned about money, it becomes evident that *it must have value.* The various forms of money actually passing from hand to hand may not in themselves be worth much, because of the low value of the metal or paper used; but to be an acceptable medium of exchange, money must at least *represent* value, that is, it must have a recognized "value in exchange."

When a merchant offers an article to a customer for a dollar, he believes that the cash he will receive has at least as much value as the thing he sells; otherwise, he would ask a higher price. The customer, in turn, must believe that the article is worth at least a dollar, or he will not buy.

If money by any chance should begin to lose its value, trade would be badly upset. When the German mark some time ago was rapidly declining in value, the thrifty German farmers

refused to sell their produce for marks, because these were likely to lose half their value during the next week or so. As a result, the poor in the cities were soon threatened with famine, and the rest of the world had to contribute to their relief.

In this country we have four kinds of metallic money and seven different sorts of paper money, but they all have equal value. We can buy just as much with five dollars in nickels and coppers, or in paper, as we can with five dollars in gold or silver.

A silver dollar is worth one hundred cents as a coin, but if it were melted up the lump of silver would be worth only about fifty cents at present prices. One hundred copper cents are just as good as a dollar, but if they were melted up the lump of copper would be worth about a dime. Likewise, the paper in a dollar bill is worth perhaps about a cent, although the bill itself is worth one hundred cents.

How, then, can fifty cents' worth of silver, ten cents' worth of copper, and one cent's worth of paper all have the value of a dollar? Some people, knowing that these different kinds of money all bear the government's stamp, have

jumped to the conclusion that it is the stamp which gives money its value.

That idea is wholly wrong, and in past years it has caused no end of mischief in this and other countries. The government's stamp on a slip of paper is like a man's signature on a check. Unless he has an ample deposit in the bank on which he draws the check, the signature is worthless. In the same way, *a government's stamp on paper money is practically worthless if the government is bankrupt.*

In Germany early in 1924 it took a trillion paper marks to equal one gold mark in value. The paper money was almost as bad as a check drawn by an individual who had no bank deposit.

In this country there is something behind the government's stamp, and *that is gold.* Any sort of money other than gold can be exchanged for gold, if the holder so desires. Gold is our *standard money.* If we melt up gold dollars the lump of gold that we get will have just as much value as the coin previously had.

Gold dollars thus get their value from the metal that is in them. Silver dollars, on the other hand, do not get their value from the

silver which they contain and which, as we have seen, is worth only some fifty odd cents, but they derive their value from the fact that the government will exchange them for the same amount of gold dollars on demand. Paper dollars, likewise, can be readily converted into gold.

Because of their greater convenience, we prefer paper dollars to gold in our every-day cash transactions, and so we rarely see the standard money from which all others kinds derive their value.

There is, however, a vast sum of gold in the United States Treasury and in the Federal Reserve Banks to be exchanged for paper money or silver whenever it is presented for that purpose. *It is this big gold reserve, and not the government's stamp, which gives our non-standard money its value.*

XVIII

WHY PRICES RISE AND FALL

We have seen the various influences which tend to make some goods cheap and others dear. If we now look further into the matter of prices we shall see that the same article or commodity may be comparatively cheap at one time and dear at another.

There are times, also, when the price of practically everything is going up, as most of us will recall when we think of the war years, and there are other periods when prices are generally declining, as happened in 1920-1921.

Prices are rarely stable for more than a very short period. Pig iron, for example, in April, 1923, was selling at $31 a ton, and by July, 1924, the price had dropped to $19 a ton.

Every housekeeper knows that fruits and vegetables are cheapest in the late summer months, because that is the time when the supply is greatest. Housekeepers also know that the best time to buy their winter coal is in mid-

summer, because demand is then slack and prices are likely to be low.

Such price changes are to be explained by the so-called *law of supply and demand.* According to this law, *prices tend to rise as demand increases or supply decreases, and they tend to fall as demand decreases or supply increases.*

The effect of supply on prices must be understood in broad terms. If the cost of producing or distributing a given supply of a commodity decreases, the demand remaining unchanged, the price will tend to fall, because the quantity needed can be more readily furnished. Likewise, if the demand decreases, the supply remaining the same, the price will fall. Reversed conditions generally lead to higher prices.

There are other changes in prices, however, that are not to be explained wholly by variations in supply and demand. Over a long period of years there may be a gradual rise or fall in the *general level* of prices, while prices of individual commodities are moving sometimes in one direction and sometimes in the other.

In the period from 1873 to 1896 prices were slowly falling. In 1897 the decline was checked and a gradual rise began. This continued until

the World War, which brought a sharp upturn in the general price level. Prices continued to soar until the spring of 1920. Since then there has been much fluctuation, but the net result has been a substantial decline from the war-time level, although the general price average is still about 50 per cent higher than at the beginning of the war.

To explain these long swings of prices, let us consider again the nature of money. We have seen that whatever we use as our standard money must have value. The less valuable it is, the fewer goods or services a given amount of it will buy. *Cheaper money means dearer goods, and dearer money means cheaper goods.*

While a dollar is always 100 cents, its *purchasing power* frequently changes. At one time it may buy 15 pounds of sugar and at another time only 7 pounds. If sugar were the only commodity advancing in price at this time we should assume that the rise was due to changes in the conditions of supply and demand for sugar rather than to a loss in the general purchasing power of money. If, however, prices of most other commodities were advancing at approximately the same rate as the price of

sugar, we should conclude that the general rise is due to the dollar's becoming less valuable.

Since our standard money is gold, any change in the value of this metal tends in the long run to be reflected in the general price level. From 1873 to 1896 the supply of gold was not keeping up with the world's demand for that metal; hence, money was becoming more valuable and prices fell. After 1897 the supply of gold began to catch up with the demand and consequently money became cheaper and prices rose.

At a given time, however, this general relationship between the value of money and prices may be very indirect, and conditions of demand and supply much more significant.

Changes in prices, therefore, may be due to variations in any one or more of these factors: (1) supply, (2) demand, and (3) the value of the standard money.

XIX

CREDIT: ITS USE AND ABUSE

A NOTED banker once facetiously explained "credit" as follows:

"Credit—a thing which a man who does not need it can get in amounts limited only by the extent to which people know he does not need it, but a thing which the man who needs it so badly that his name is already on the list of the candidates for the poor farm cannot get at all."

Credit may be broadly defined as *the power to command present goods or money in exchange for a future equivalent.* It is difficult to establish, easy to lose, and almost impossible to regain when once misused.

Perhaps nine-tenths of the business of the civilized world is now done on credit. Only minor transactions are conducted on a cash basis. Credit operations extend all the way from the familiar practice of "having things charged" at the store to the borrowing of

millions by public and private corporations through the issue of bonds.

In every transaction in which a promise to pay takes the place of actual payment we have credit. But credit rests on something more than a mere promise. There are many people who are quite willing to make all the necessary promises but who cannot get credit.

In general, before a business man can obtain credit he must give evidence that he possesses either character and capacity or collateral. Bankers and others who extend credit on a large scale give character the first place on the list.

Credit greatly facilitates production by permitting the fullest employment of capital. In our modern industrial system, as we have already seen, raw materials must be bought and paid for a long time before they are to be sold as finished goods. Merchants, too, must lay in their stocks in advance of consumers' demands. It is necessary, then, for manufacturers and dealers to have a considerable amount of funds in hand in advance of the sale of their products.

While goods are being manufactured, wages and other expenses must be paid. Only a small

proportion of producers have sufficient capital on hand to enable them to meet such charges before they have sold their goods. Consequently they must obtain credit from some source, and they usually get it from a bank.

In this way credit gives producers a vastly greater command over commodities and service than they could obtain by relying on their individual resources alone. Without ample credit industrial activities would be greatly curtailed, employment would be reduced, and wage earners and salaried folk would be the first to suffer.

A sharp distinction must be made, however, between credit for *production* and credit for *consumption*. The former increases the sum total of our wealth and satisfactions, while credit for consumption often brings impoverishment in its wake.

In times of emergency a man may be compelled to borrow in order to meet his ordinary living expenses, but if he continues to follow this policy at any other time he is headed straight for the almshouse.

Largely because of its great convenience credit is sometimes subjected to serious abuse. Manufacturers and wholesalers, under the

stress of keen competition, sometimes extend credits unwisely and encourage small merchants to lay in heavier stocks than they can dispose of at a profit. This is one reason why there are so many small retailers in the field and the number of failures among them is so large.

In like manner, some retailers are over-liberal in granting credit to their customers and thus tempt some people to live beyond their means. This is especially noticeable in connection with the buying of automobiles, radios, and other articles of luxury on the instalment plan.

In spite of these abuses, credit is indispensable in modern industry. If actual money had to be used for every purchase we could transact a much smaller volume of business and should also need a vastly greater amount of money than we now have in order to do it. The waste and inconvenience from such a system would be many times greater than the wastes that now follow any abuse of credit.

XX

BUYING THIS YEAR'S CAKE WITH NEXT YEAR'S BREAD

Referring to a neighbor woman who had recently moved into the community near election time, Mr. Jones, who was a candidate for office, asked his wife whether Mrs. Smith was a conservative or a progressive. Mrs. Jones replied: "I know nothing about her political views, but I do know that Mr. Smith wears last year's clothes, while Mrs. Smith drives a this year's automobile, and spends next year's income."

Mrs. Smith is typical of many Americans. In fact, throughout the world we are known as a nation of wasters and careless spenders. With the enthusiasm of youth we are forever disposed to chase the far end of rainbows. Our natural resources have been not merely consumed but frequently utterly destroyed in a manner which shocks the average European. For all of us, one of the hardest jobs in the world is to live well within our incomes.

No sooner have we made up our minds to

budget our expenses, save, and provide for the future, than some high-pressure salesman comes along and tells us that if we will buy an article now, which can be paid for by monthly instalments over the next year, we will be putting the budgeting principle into effect in a very practical way, and will be learning the essentials of saving! Automobile and radio manufacturers, department stores, advertising agencies, and—surprising to note—even some bankers, have recently tried to defend the practice of paying for this year's luxuries out of next year's prospective income.

Many of those who worship the god of "Volume" in business have even tried to pervert the science of economics to their own ends in order to prove that living beyond one's income will reduce costs of production, create more wealth, and raise the standard of living for each of us. It has sometimes been erroneously claimed that if we increase our consumption this year by drawing on future income, we will thereby create more work and more permanent business for everyone!

What are the facts? We are not here discussing the problem of financing "*producer's*

goods," such as railways, office buildings, light and power stations, by means of borrowing. Such projects pay their way out of annual earnings, and, if properly managed, increase the general well-being.

On the other hand, if we borrow, or pledge our future income, in order to buy those commodities which we use only for ourselves, and which yield no money income, we begin to be on dangerous ground. To be sure, there is frequently ample justification for buying *"durable consumers' goods,"* such as a house, long before we have accumulated enough money to pay the entire cost. Yet, this common transaction is sometimes accompanied by a good deal of risk and even by loss.

However, if we try to buy such things as automobiles, phonographs, furniture, and clothing, by small down payments and the balance to be paid over a series of months, we are spending the income which we *hope* to have, for goods which perish rapidly as we use them.

As long as our earnings continue unchanged, and while there is no unexpected accident, sickness, or other contingency, we may be able to pay the bills. But whenever business condi-

tions become less favorable and employment is less steady, those who incur obligations in this manner are confronted with the alternative of depriving themselves of the necessities which they need at present in order to pay for the luxuries which they have been enjoying in the past.

The money and labor which are spent in the production of unnecessary goods are thereby diverted from the production of necessities. If we spend more for luxuries this year, we have less to spend for necessities. We cannot ultimately consume any more goods merely because we buy them before we are able to pay for them. All that we do in this process is to try to raise ourselves by our boot straps.

Further, it is a very expensive proposition to buy perishable goods on time payments. The actual price is greatly enhanced by interest payments, commissions, losses, the cost of credit investigations, and other expenses which result from doing business in this way.

But the dangers do not stop here. When certain industries are artificially stimulated through instalment selling during a period of prosperity, plants are expanded and investment

in those industries is increased without much regard to the normal demand for the product. However, when a natural decline in prosperity follows—and periods of unusual prosperity are nearly always compensated for by some depression—many who pay *cash* cease to purchase, and practically all of those who buy on instalments find that their income is decreased to such a degree that their new purchases must stop. Further, many of the articles sold during a period of abnormally high business activity will tend to be repossessed by the sellers, thus coming on the second-hand market, and thereby decreasing still further the sale of new goods. This, of course, means a sharp decline in employment in the industries involved, together with a corresponding drop in purchasing power.

All of this means that spending in excess of our income tends to increase the fluctuations in business and thereby to increase the cost of doing business, and makes our actual standard of living lower than it otherwise would be. We cannot live on cake. *If we exchange next year's bread for this year's pastry, we should not be surprised at a little indigestion at some later date, and we may go hungry!*

XXI

OURSELVES AND OUR BANKS

Since credit is employed on such a large scale in modern business, there is need of special machinery for supplying it when and where it is required. Such a need is supplied in this country by some 30,000 banks.

Some of us may think of a bank as merely a place in which to deposit our pay checks and on which to draw other checks when we pay our bills. This, however, is only a minor banking function. If banks confined themselves to such operations they could not meet their running expenses, and they would contribute very little to the well-being of their communities.

A bank renders its greatest service by putting idle money and available credit to work. It does this by making loans for productive purposes. The basis for such loans is (1) the capital supplied by the bank's stockholders, and (2) the money which its customers leave on deposit.

Banks do not lend all the funds in their vaults. In this country they are required by law to retain a part of their deposits in the form of cash and this is designated as their *reserves.*

Experience has shown that only a small percentage of deposits will be called for in any one day. A well-managed bank, therefore, arranges its loans so that a certain amount of them will fall due each day. As these are repaid, new loans can be made. In this way the bank keeps its business *liquid,* and is able to make loans which in the aggregate are many times as great as the capital employed.

What a borrower usually requires from a bank is not *cash* but *credit,* and it is in supplying such credit that banks render their greatest service to industry.

Let us consider the case of a merchant who has to purchase a large stock of goods for his fall trade. He does not have enough funds to meet his current running expenses and to pay for this additional amount of goods. He therefore goes to his bank for credit and gives his note for the amount of the purchase, payable, say, in ninety days. He does not walk out of

the bank with his pockets bulging with the money. That would be inconvenient and unsafe. The bank simply credits him with a deposit against which he can draw checks to pay for his new goods, and charges him the current rate of interest on his loan.

By the time the note becomes due the goods will have been sold and the merchant will have the funds with which to repay the loan.

In this case the bank has lent credit rather than cash. It has enabled the merchant to exchange his personal credit for the bank's credit. The latter has the advantage of being *generally acceptable,* whereas the merchant's credit is acceptable in a very narrow field.

A salesgirl would not accept this merchant's promissory note in payment of her wages, no matter how good his credit may be. The merchant's bank, however, will accept his note and he can then pay his employees with checks. They will readily accept the checks because they can convert them into cash or deposit them in their own banks.

The extension of bank credit is thus of vital importance to wage earners as well as to merchants and manufacturers. By mobilizing the

surplus funds of the country and extending credit for productive purposes, banks make it easier for all of us to earn a living.

If anything should go wrong with our banking machinery, production would be curtailed and there would be unemployment, diminished consumption, and eventually lower standards of living for everybody.

XXII

HOW WEALTH IS DIVIDED

So far we have discussed mainly the conditions governing the making of goods and their transfer to consumers. Let us now consider a different problem; namely, the conditions determining what portion of the wealth produced goes to each producer.

The total product of goods and services due to the combined efforts of labor (including managerial labor), land, and capital, in any given period, constitutes the *gross income* for that period.

In creating this income, however, some existing wealth is destroyed. For example, coal is burned, machinery is worn out, and so on. Hence a certain proportion of the gross income must be used for *replacement* of buildings, raw materials, machinery, and other equipment. What is left after this replacement constitutes the *total net income* of the community.

Now this total net income is not brought to-

gether as a lump amount, but about as fast as it is produced it is divided up among the various groups of people who in one way or another have had something to do with its creation.

This division or apportionment of the total income among the factors which have produced it is commonly called the *distribution of wealth.*

One portion of the net income goes to pay for the work done by *labor;* we call this portion *wages and salaries.* Another portion goes to pay for the services rendered by *capital;* we call this portion *interest,* whether it is paid to those who lend money to others and receive bonds or notes as the evidence of their loan, or whether it merely accrues to the benefit of the owners who put only their own money into the business. A third portion goes to pay for the use of *land;* we call this portion *rent.*

Whatever is left after wages, rent and interest are paid, remains in the hands of the business organizer or risk-taker as *profits* of management. If the business is incorporated, this residual amount of money may be distributed to the stockholders, or owners, as "dividends," and a portion should be retained in the business as the "earned surplus"—a sort of reserve to

draw upon for the future if earnings are less satisfactory.

All our income may be classed under one or more of these four heads. One man's income may consist wholly of his wages or salary; another may derive his income from interest on his invested "capital"; another, from the rent of his lands; and still another may derive part of his income from each of these sources, and in addition may pick up a profit "on the side" by trading in securities or real estate.

Each of these four kinds of income is absolutely essential to the conduct of modern business. No one will dispute the fact that wages must be paid to workers. We shall see later why rent, interest, and profits are also necessary.

Since this division of wealth is necessary to further production, let us next consider the general principle governing the method of its distribution. In other words, what is the chief influence determining whether the share which goes to each group of producers shall be large or small? The answer to this question may be summed up in the one word, *productivity.*

Labor receives wages because it is productive.

The more productive it is the higher the wages will tend to be; and, contrary to popular opinion, the lower will be the price of most manufactured commodities. The same principle applies in the case of the rent of land and interest on capital.

But we should remember that in our modern world no one of the factors referred to, land, capital, labor, or management, can be productive without the other. No one of them can directly and unaided produce anything of value. Labor must be applied to land in order to raise food crops. Capital must also be applied in the form of machinery, improvements, and seed. The capital in a factory can produce no goods without the labor of employees and managers.

As land, labor, and capital may be substituted for one another to a certain extent, no one of these can continue for an indefinite period to command a greater share of the total net income than its services are worth. If interest rates are very high and wages are low, as is the case today in many backward countries, production will be carried on largely with hand labor, because it is cheaper to use this than capital in the form of machinery. In the same

way, when rents are very high it will be profitable to use land sparingly and to employ large amounts of labor and capital. *One factor of production can thus frequently be substituted in some degree for another.*

This power of substitution in the hands of the intelligent business manager enables him to employ that combination of land, labor, and capital which in the long run, under free competition, will result in a *maximum net return,* with a resultant *maximum income* to be divided among the groups that have produced it.

XXIII

WHY WE MUST PAY RENT

RENT, in the strictest sense of the word, is the price paid for the use of *land*. Sometimes we use the term in the broad sense of "hiring," as when we speak of "renting" an automobile by the hour or a piano by the month.

In popular discussions and in common practice no distinction is made between payments made for the use of land and of buildings or other improvements which go with the land. However, the latter are in the nature of an "investment." Therefore, the amount of money paid for the use of buildings, as such, usually depends over a period of time pretty largely on the rate of interest which is customarily paid upon investments of a like degree of risk, allowance being made for depreciation, repairs, insurance, taxes, and the like.

Nor is there a very wide difference between the cost of constructing similar buildings in different parts of a highly civilized community.

One piece of land, however, may cost a thousand times as much money as another piece of the same size not many miles away.

In using the term *rent* in this discussion, we shall refer only to payments for the use of *land*.

We all know that rents tend to increase with the size of the city, and that in the same city there are wide variations in the rents paid in different districts. In a small and rapidly growing city, however, rents may be higher than in a larger one where the growth of population has been checked.

Again, in any given city rents usually are highest in the business district and steadily decline as one proceeds from the heart of this district through the residence section and out into the suburbs.

If anyone cares to go far enough away from settled communities, he may finally reach a spot where he will not have to pay rent. It may be asked why the people who complain of high rents in the cities do not go out to regions where land may be had practically free of cost. In actual practice the movement is almost wholly in the other direction; people tend to migrate from low-rent to high-rent districts.

For this there is a good reason. The low-rent lands in this country are now the least useful for production. This is true whether the lands are to be used for agriculture or for sites for factories, stores, or offices.

For agricultural purposes, the best land must possess both *fertility* and *nearness to the market.* If either of these is lacking, the land becomes less productive in the social sense. Variations in these two requisites largely account for the difference in productivity, and consequently desirability, between different farms. This is commercially expressed by the difference in rent which various pieces of land will command.

Further, whether one is an owner, cultivating his own land, or a tenant, the phenomenon of rent persists just the same. The farmer, through the price of the crops or animals which he sells, receives the money which a tenant might have paid him; and the tenant in turn must deduct from his gross annual income the amount of *rent* which he pays to the landlord.

As the natural fertility of the soil is exhausted, more labor and capital are required to produce a given quantity of crop. The land as

a factor in production contributes relatively less and accordingly commands less rent than more fertile land. This tendency is frequently referred to as the law of "*diminishing returns.*"

Land situated on the principal business street of a large city is more productive for the merchant, that is, will bring him more customers and a larger income, than land in the suburbs or in some small village.

For this reason the merchant can *afford* to pay more, and is also *willing* to pay more, for the better situated land.

Not only that, but he *must* pay more. The amount of land suitable for business sites is strictly limited. Since there is not enough very good land to go around, men compete with one another for the best grades, and the most desirable locations will go to those who offer the most for them.

In this way, rent serves a useful social purpose. The most efficient producers will get the best land, and the least competent will be prevented from using good lands ineffectively.

The price paid for the use of land differs in one very important respect from prices paid for commodities. When commodity prices ad-

vance, production is stimulated and the consequent larger supply tends to check the rise. Prices, therefore, will not continue to advance for an indefinite period.

As population grows and the natural demand for land increases, the rent of *good* land, whether rural or urban, tends to go steadily higher, since the supply is definitely limited. In our larger cities land rentals in the business districts reach almost fabulous amounts. In such cases it is necessary to economize in the use of land, and instead of one- and two-story buildings scattered about, as in small villages, we find clusters of twenty- and thirty-story sky-scrapers.

Summarizing, then, we see that (1) men *can* pay rent because land is productive; (2) they *must* pay rent because the amount of good land is limited; and (3) the *amount* they pay will be governed by the extent to which the land in question aids production over and above the land which is "marginal"—that is, land which is so unproductive and undesirable that people will pay nothing for its use.

XXIV

WHY WE MUST PAY INTEREST

Interest may be defined as payment for the use of *capital.* In some ways it resembles rent, but it also differs from it in many important respects.

Unlike land, capital may be freely reproduced, and for this reason the rate of interest tends to fluctuate within relatively narrow limits. An advance in the rate will stimulate the accumulation of capital, and when the supply increases the rise in the rate will be checked.

An unduly high or low rate, therefore, will eventually bring its own remedy. This does not occur in the case of rent.

Where population is most dense rents are highest, but in such places interest rates are generally much lower than in sparsely settled communities. This is due to the fact that capital accumulates where highly civilized people congregate.

We have seen that capital plays an important

part in every line of production. Men want it because they can produce more with it than without it. They pay for the services of capital for the same reason that they pay for any other productive service. A loan of capital confers additional *purchasing power* upon the borrower and thus gives him command over goods for use in the further production of wealth or for the immediate satisfaction of his wants.

This explains why men are *willing* to pay interest. Let us now see why they *must* pay.

When the owner of capital turns over the product of his savings to some one else, he is deprived of the satisfactions and advantages to be derived from their use. He also incurs a certain amount of *risk*. Hence he will naturally demand some sort of compensation in addition to the repayment of the principal.

But this does not tell the whole story. In accumulating capital funds the average lender must deny himself certain immediate satisfactions. Few people will make this present sacrifice without the prospect of a future reward, which takes the form of interest. Most of us are willing to put aside a limited amount of

funds with no other reward than the protection thus afforded against a "rainy day," but the amount of funds accumulated because of this motive alone will fall far short of supplying the capital required by modern industry.

Interest must be paid, then, to induce further accumulation. Such accumulation involves *saving* and *waiting*, and interest is sometimes called "the reward of abstinence."

If present rewards (or interest rates) are not sufficient to cause the accumulation of needed capital, the most eager borrowers will offer greater inducements. This means that interest rates will tend to advance until the supply of capital is more nearly in balance with the demand.

The rise, however, will be limited, as borrowers cannot afford to pay more for the use of funds than the services of capital are worth.

The *fact* that interest must be paid should not be confused with the *rate of interest* paid. As stated above, the actual rate of interest on first-grade loans varies over a period of generations within rather narrow limits. War, with consequent destruction of capital, may cause a sharp though temporary increase in rates.

Lower rates tend to be found in old countries with stable governments. Higher rates are usually paid in newer countries and for capital used in new industries. There are other natural differences depending upon the length of *time* for which loans are made. Whenever the "risk" is commonly supposed to be greater, higher interest rates must be paid.

The important thing to remember is,—

We must either pay interest or do without most of the capital which we now employ in operating our farms, factories, mines, railways, steamships, and stores. *Without the constant accumulation of capital under the inducements offered by the payment of interest, our modern civilization, with all its comforts and conveniences, would be impossible.*

XXV

WHAT DETERMINES OUR EARNINGS

If we compare the wages which a Southern farm hand receives with those paid in some of our cities to members of the building trades, we shall find that the carpenter gets nearly as much money in an hour as the farm hand gets in a whole day. And a day for a farm hand means work from sunrise to sunset.

These two cases represent opposite extremes, but in between these there is a considerable variation in wages in different lines of work. The conditions which determine these variations affect our incomes as well as the incomes of our friends and neighbors.

What are they?

In the long run, an individual's earnings will depend largely on what he produces. Wages and salaries must be paid out of production; that is, the products of the workers are exchanged for money, and out of this must come their pay. If prices are rising the sale of the

products will bring more money. When this happens wages tend to advance. Likewise, when prices are falling wages tend to decline.

Now, some one may say, during recent years prices have been falling, but there were many increases of wages as well as some decreases. This is all quite true, and it raises another interesting point.

While prices were declining, manufacturers were at the same time seeking to offset this decline by improving their methods of production, frequently utilizing more capital in the form of machinery. The purpose of such improvements was to bring down costs, in order to make satisfactory profits. When they succeed in doing this they are able to continue paying high wages in spite of somewhat lower prices.

If, however, prices should fall steadily over a longer period, the manufacturer would find sooner or later that he could no longer bring down his costs in proportion. He would then have less money for paying his workers, because their product would have a lower market value.

If the workers should insist on receiving

more than the value they had added to the product, the manufacturer could not meet their request without eventually being forced into bankruptcy. For the workers that would be like killing the goose that laid the golden egg.

But when prices go down, money wages remaining unchanged, earnings have really been increased, since every dollar received can be exchanged for more goods. Also, when wages occasionally are reduced as prices decline, our real income will remain unchanged if our money income continues to command as many lower priced goods and services as before.

In general, whether prices have been rising or falling during the past fifty years in the United States, it has been possible with an hour's labor steadily to command more and more of the necessities and comforts of life with the result that *our standard of living has been constantly improving.*

Another thing affecting our earnings must now be considered. This is the question of supply and demand. We know that when labor is scarce and the demand is great wages will rise. But this does not contradict what has been said about wages depending on production. When

the demand for labor increases this means that there has been an increase in the *demand for the products of labor.*

A big demand for carpenters and bricklayers would not arise unless there were first a big demand for more houses. This demand for houses increases their market value; hence the part of the house that the carpenter produces has greater value and his labor is worth more in dollars and cents than it was before.

This adds further proof to the statement that wages tend to vary with the value of the workers' output. Nearly everybody would like to increase his income. That is a worthy object and it is the motive behind all industrial progress.

The principal object of intelligent management is so to handle the productive forces of capital and man-power that each worker can without detriment to himself help to create more goods each year for the use of everyone, thus raising the standard of living and increasing the *real income* of us all.

The only sure way in the long run to get more income is to increase the productivity of our labor.

XXVI

MONEY WAGES AND REAL WAGES

Abe Martin remarked not long ago: "There are plenty of good five-cent cigars today but they cost too much."

This humorous comment illustrates a fact with which we are all familiar: the same amount of money this year will not necessarily purchase the same quantity of goods next year.

The explanation of rising and falling prices has been previously given. Changes in the price level are only one part of the problem. We do not care how much prices rise if our income expands so that we can still buy the usual amount of commodities. If prices rise more rapidly than our earnings, obviously we must be content with less. In other words, *the test of our earning power is not how many dollars we make, but how many goods and services these dollars will purchase.*

Shortly after 1914, prices of all kinds of goods rose rapidly. Salaried people still re-

member how it was necessary continually to get along with fewer things. Wages increased slowly but prices increased rapidly, and the real income of most workers declined. On the other hand, after the war prices dropped and wages for a time remained stationary. Money wages purchased larger quantities of goods than a few months before when prices had not yet begun to decline. Real wages were high.

We sometimes call earning power, as ordinarily expressed in terms of dollars, "money wages," to distinguish it from "real wages," which are the things money will buy. Since constantly increasing wages are of little benefit if prices increase at the same time and at the same rate, *real earning power is measured by the ratio of money wages to prices.*

When prices advance less rapidly or decline more rapidly than money wages, real wages increase. The spread between money wages and prices has widened in this country during the last five years.

How well off is the American worker today? A recent government report states that wage earners in 1925 made approximately $2.38 for every $1.00 in 1913. This report also shows

that $1.74 was required to buy as much food, clothing, and shelter as in 1913. The real wages of the worker in this year, as compared with 1913, were $2.38 divided by $1.74, or $1.37. In other words, workers in industry on an average could purchase 37 per cent more goods than in 1913. *Real wages* improved by this percentage in twelve years.

But there are other factors than the price of commodities which we buy that have a direct influence on *real wages.*

In the first place, geographical location is frequently highly important. The *cost of living* is less in many smaller towns than in our great industrial cities. A given money wage, therefore, will go farther in such localities. Also, important differences both in the cost of living and in standards of living are found between different countries. A considerably lower money income, therefore, in some of these countries may not mean a corresponding reduction in *real wages.*

In the second place, it should be noted that there are frequently important differences in the conditions of employment within a particular industry, or in various companies within

the industry, which vitally affect the *real income* of satisfactions accruing to the worker. For example, along with the money wages are often included such items as sickness benefits, vacation allowances, shorter hours, better working conditions, and other advantages which make the *real* wage paid by one concern virtually higher than that paid by another concern which gives the same money wage.

It is highly significant, that "money wages" and "real wages" in the United States are now the highest in our history and, so far as we know, higher than at any other period in the history of the world. Working conditions, also, are generally better than in any other country.

What is really important to each of us is the *total benefits received*—not merely the number of dollars earned.

XXVII

WHY BUSINESS MUST EARN A PROFIT

If you were looking for a job and had a chance to take a position with two companies, one of which was making a fair profit while the other was barely able to make both ends meet, it is not hard to guess which job you would take.

You would prefer the company which was making money. You would feel safer working for a concern like that than for one likely to shut down its plant and perhaps go out of business entirely on the approach of hard times. And so would everybody else.

Moreover, the company that is prospering will usually have the best of everything—the most comfortable and sanitary buildings, the latest safety devices, the best foremen. All this will be in strong contrast with the conditions in the shop of a concern that is losing money.

Did you ever take a trip over a railroad that was having a hard struggle to keep going? Not only are its cars dilapidated and its roadbed

full of bumps, but its employees themselves appear shabby and dispirited and look as if they wanted to apologize for being there. Then, note the difference when you take a trip over one of the more prosperous roads. The two roads probably pay the same scale of wages, but the employees seem to be getting along best on the system that is earning a profit.

But profits affect not only the welfare of employer and employee; they are necessary to both the present and the future well-being of every civilized country. When we say that a business is earning a profit we mean that it has a surplus on hand after meeting all its running expenses. *It is only by the accumulation of such a surplus by its producers that a nation becomes wealthy.*

If the people of America had always consumed as much as they produce they would be living today very much as the Indians did when the first white settlers came to this country. It is this ability to produce a surplus above our immediate needs that has made our modern civilization possible.

Now the individual who consumes as much

as he produces adds nothing to the well-being of his community, and the world is no better off for his having been in it.

And what is true of one individual is true of a large number banded together as a corporation. A large part of modern business is carried on by such organizations. In order to produce they must have capital, and this is to be had only because past production has exceeded past consumption, or because *the community has been accumulating a surplus.*

But if business in past years had not been earning a profit there would be no such surplus. Business then would cease to grow, and it *must* grow in order to take care of the needs of the growing population, or people hereafter must give up some of the comforts which we now enjoy.

We now get the idea. Business must earn enough not only to provide for its day-to-day needs, but to provide for its future growth and improvement. It can't do this if it is living on a hand-to-mouth basis. It must earn something above ordinary running expenses. *It must show a profit.*

But net profit is the amount of money left to the individual or to the corporation after all agencies which have contributed to production have received their share. Materials must be bought, wages and salaries must be paid, rent must be provided for, interest on capital must be taken care of, depreciation must be figured, and taxes must be turned over to the government. Then, if anything remains, we have a *profit.*

Within any competitive industry, however, figures show that comparatively few concerns make any substantial profit and many are operated at a loss until they fail. At the present time, also, those public utility enterprises which enjoy a local monopoly *granted by law,* have their rates so regulated by *commissions* that their net earnings are limited to an amount which is only sufficient to provide a *low* return on the actual investment and to take care of normal depreciation.

"High profits," therefore, are on the average rare in any *stable* industry. In the less stable and more speculative enterprises a few may reap rich rewards, but many merely lose money.

Profits, then, are a *residual* claim on produc-

tion. They are the reward of superior efficiency in *management*. They result from the vision, courage, organizing ability, energy, and foresight of business men.

As a rule, the highest wages are paid and the steadiest employment is found in those concerns which make the highest profits—which in turn result from *greater efficiency*.

XXVIII

HIGHER STANDARDS OF LIVING

The popular habit of "Keeping up with the Joneses" has been humorously satirized in a comic strip. We tend to imitate those whose standard of living is a little higher than ours, that is, who consume more goods than we do. We laugh at others for doing this and then we all do it ourselves.

The impulse, however, is not to be ridiculed, for a large part of our economic progress is due to the extra effort which this motive arouses. Like Oliver Twist, "we want some more"; but the way to get more, we have found, is to produce more.

In the early days of the application of machinery to the manufacture of textiles, the hours of work in the mills ranged from twelve to sixteen a day. When quitting time came, the worker had only two main desires—food and sleep. In the lifetime of the present generation, work days of ten and twelve hours were

not uncommon in many industries. The usual hours of labor are now eight a day.

The shorter work day and higher wages have given workers an opportunity to indulge in recreational activities, self improvement, and cultural pursuits. Our *standards of living*, the things which we come to regard as essentials to health, efficiency, and comfort, are high for all groups.

This country has been endowed with rich natural resources, such as agricultural land, forests, coal, iron ore, and all the materials necessary for great industrial activity and prosperity. The heavy work is done by machinery wherever possible. Natural energy has been harnessed in unusual measure to relieve muscular effort. Management has, comparatively, been unusually intelligent. Workers have been willing to give a good day's work for a good day's wage. An extraordinarily high national production has been achieved.

As a consequence, many workers own their own homes, are able to send their children to advanced schools, and enjoy many of the finer things which make life worth while. In no other country is material well-being so widely

diffused. In other words, our standards of living are higher than anywhere else in the world.

In some countries standards of living are primarily fixed by custom, and "once a worker, always a worker." When this idea prevails, the incentive to greater production is largely killed. Further, when the additional wealth created by productive processes is not equitably distributed, the standards of living of part of the population are apt to be held stationary, or to be depressed.

In a comparatively new country, such as the United States, where economic development is proceeding rapidly and where no rigid class distinctions have been set up, standards of living are progressive. Each year new things which were formerly considered luxuries are becoming essential parts of our daily living. This is possible because every one who has contributed to greater production shares in the general prosperity of the United States.

Opportunity is still open to all, and rewards are usually in proportion to effort. It is well to bear in mind that only so many goods are made within a given period. If everyone is to

have a greater share, a greater total must be produced.

Higher wages and dividends can be paid by industry only if more goods are made at a lower cost and sold at a fair price.

In the words of John Smith, when famine faced the early colonists in Virginia, "If you will eat, you must work." If you would have more, produce more.

The world owes no man a living, but knowledge, energy, persistence, and thrift will usually assure any man a good living. *Unless all engaged in industry have these qualities in high degree, whether in managerial position or in more humble capacity, the standard of living is bound to be low.*

XXIX

WHAT OUR TAXES MEAN

Modern governments derive their revenues largely from taxes or from loans.

A pay-as-you-go policy requires that most expenses be met out of taxes. This would ordinarily lead to greater economy in public expenditures. But the more popular course is to borrow money and to let future generations take care of the payment of interest and the repayment of principal through taxation—which is a far more expensive procedure in the long run.

For a government, as for an individual, it is much easier to spend money than to make it.

During the year 1922, it is estimated that on the average every man, woman, and child in the United States contributed about $70 to pay in some direct way for the expenses of being governed.

Every time one of us puts aside $7 for him-

self, he must give up $1 to the national or local government. Every person gainfully employed in the United States in 1922 surrendered about $170 for the public use.

Over the 10-year period 1912-1922, our national tax bill increased from $2,199,000,000 to $7,433,000,000, a gain of 238 per cent. The *per capita* increase in taxes has been almost equally marked.

In addition to this striking increase in the annual tax bill, our public debts during the same period increased from $6,815,000,000 to $32,787,000,000—an increase of not far from 400 per cent.

This increase in taxes and public debts has been out of all proportion to the increase in our annual income and our national wealth.

The chief sources of our public revenues from direct and indirect taxes during recent years have been roughly as follows, expressed as a percentage of the total:

General property taxes (imposed on land, buildings, and other tangible property)	about 45%
Corporate income taxes	12 to 15%
Internal revenue (indirect taxes imposed by the Government)	about 12%

Personal income taxes.....	9 or 10%
Customs duties	about 8%
Licenses and permits (imposed by local authorities)	about 6%

It is further interesting to note that of all people gainfully employed in the United States, not more than one in six has actually been paying personal income taxes. Also, since considerably less than half the families in the United States own their homes or any real estate, it is easy for them to believe that somebody else *pays their taxes.*

The fact that only a small minority of our people ever pay taxes *directly* has probably been responsible for much of the waste and inefficiency which we frequently associate with governmental activity whether national or local.

Can any of us really avoid paying our share of the expenses of the government? *We cannot.* Taxes can be paid only out of our income, either directly or indirectly. *They are part of the general expenses of doing business,* whether it be manufacturing, trading, farming, or any other occupation.

If business enterprises have to pay taxes, it is necessary for them to make profits large

enough to meet this extra expense. This means that relatively higher prices will be charged to the consumers of the goods and services produced by business—that is, all of us must pay.

The owner of a building who finds himself heavily taxed on his real estate, usually manages to pass this tax along to the tenant of the building in the form of increased rent, which within certain limits all of us must pay. If the renter happens to be a storekeeper, he passes this higher rent along to the people who trade with him in the form of higher prices for the goods which he sells.

So generally understood is this principle that the tax on improved real estate and buildings tends to be shifted to the occupier, that in most European countries the tax is collected directly from the tenant instead of from the owner!

Internal revenue taxes, license fees, and permits, always tend to be passed along to the consumer in the form of higher prices.

The common-sense principle applying to customs revenues is also perfectly clear. Tariffs imposed on the importation of goods which might be made more cheaply in foreign countries naturally and inevitably tend to increase

the price which the consumer must pay for similar goods produced at home, or for the goods which manage to come into the country over the "tariff wall."

Indirectly, therefore, while the tariff is frequently regarded as an easy source of public revenue, or as a means of "protecting" domestic industries, the burden is very frequently shifted in such a manner as temporarily to foster special "interests" at the expense of the ultimate consumer. *We all pay these taxes whether we will or no.*

It has usually been found impracticable to tax one class of people in order to confer special benefits upon another class. In the long run, through the operation of perfectly natural laws, such a tax will tend to be "shifted"; and in the process the burden will become even heavier, and it must be borne by all.

Taxes must come out of the national income. We all help to produce that income. Through our industrial coöperation we are all engaged in devious ways in *paying each other's taxes.*

Any public expenditure is justifiable which in the long run adds to the total well-being of the community in such a manner as to increase the

productiveness of the people, either directly or indirectly. *All other expenditures are wasteful.*

If we wish to keep prices down and to raise our standards of living, it is highly important for all of us to take that intelligent interest in our government which will lead to the best economies in the expenditure of *our money.*

XXX

COMPETITION AND COÖPERATION

We frequently hear the saying, "Competition is the life of trade." It is equally true at times that competition is the *death of trade.*

Several generations ago practically all business activities were so closely regulated by governmental bodies and so burdened with unnecessary and uneconomic restrictions that industrial development was almost impossible.

More than a century ago there was a violent reaction against government interference. This movement was stimulated in the English-speaking world by Adam Smith's famous book on *The Wealth of Nations,* published first in 1776, the year of American independence. Public sentiment began to swing gradually to the opposite extreme, and during most of the nineteenth century industry was carried on largely under conditions of so-called *laissez-faire*—that is, freedom from government intervention.

This freedom led to a high degree of competi-

tion in industry, which in the United States brought about unusually rapid industrial development during the latter part of the nineteenth century and the early part of the present century.

However, unrestricted freedom is always in danger of being abused unless unusual intelligence is possessed by business men. It was gradually found that in innumerable ways so-called "free competition" frequently led to sharp practices and to exploitation of the weak by the strong. It has also been found that the ease with which almost anyone can enter the competitive struggle has caused many incompetents to try their luck—to risk their own capital or that of others in needlessly duplicating productive facilities. This in turn has caused many failures and has frequently led to over-investment in factories, railroads, and other forms of permanent capital.

These are wastes which we all must pay for, either immediately or ultimately, through higher prices for our goods, *unless* competition has led to real economies in management by those who remain in the field. In the early stages of industrial development such improvements may

be realized; but under more seasoned conditions it is probable that the losses outweigh the gains.

Our federal government has in the past generation recognized some of the evils of *"cut-throat" competition,* and of those *monopolies in restraint of trade* which very frequently develop as the sequel to unrestrained competition. Accordingly, a good deal of legislation has been passed relating to these questions and applicable to all types of industry. Some of this legislation has probably served a real social need; and some of the laws have undoubtedly been harmful, either because of their political intent or because of the manner in which they have been applied.

However, the public, that is, all of us, no longer believe that unrestrained competition is necessarily ideal, or that it always leads to greater productivity and lower prices. *And the people's voice will be heard on this question.*

It is not the purpose here to discuss that mooted question as to what constitutes "fair" competition. It may be briefly stated that, *from a sound social point of view, that competition is "fair" which results ultimately in the creation*

of the most satisfactions or "real income" for all of us; and that competition is unfair which decreases the sum total of our enjoyable goods and services.

Within these broad limits it has been clearly recognized that local public utilities, such as electric light and power plants, gas supply systems, street railways, and telephones, can be most economically carried on, with the lowest aggregate investment, and can give the best service consistent with lowest prices to the consumer, if they are operated as "monopolies," *subject to public regulation.* This means that they will be allowed to charge rates only high enough to yield a "fair" return upon a "fair" investment. In regulating such enterprises the present tendency is, and should be, to allow some premium for *superior efficiency in management.*

Practically all of our states now have public service commissions which exercise this regulatory power over public utilities, which, as a rule, are no longer allowed to operate in competition with each other. To the extent that such regulation can be kept free from political considerations and can be based on mutual understanding

of the problems involved and coöperation in their solution, there should result a distinct economic gain from such "controlled monopolies."

Cases of real "monopoly" in manufacturing or trading enterprises are practically unknown in our country. However, in those types of business where *mass production* is possible, large *size* has frequently been found to result in great economies which could never be realized by the smaller concerns. In earlier years some of these large units have crushed their smaller competitors. More recently the tendency has been for the leaders in various fields to adopt a "live and let live" policy, and to raise the standard of efficiency for all in the industry through research, trade-association activity, and other means.

Yet it must not be supposed for a moment that mere bigness necessarily means low costs and low prices to the consumer. The reverse is frequently true. A large organization may become so unwieldy and complicated that the theoretically possible economies are never realized. The most profitable size frequently depends upon the nature of the business; but in

most types of industry there is still a distinct place for the smaller units, with their greater flexibility and with more numerous opportunities for training men broadly and quickly in all phases of the business game.

The important thing to remember is that, while the social wastes of unrestrained and unintelligent competition are vast, real gains arise from intelligent rivalry in business, conducted on a high plane. *This kind of competition, however, really means coöperation*—which is the very basis of our industrial life. It means competition in *service,* rather than merely competition for immediate profits without much regard to future results.

If business will conduct itself on this high plane of *coöperative competition,* and will intelligently regulate its own affairs, as it is clearly able to do, then after a time there will be little need for government intervention. As the public becomes *informed,* popular clamor will tend to cease.

The people of the United States, through the silent revolution in ownership which is now going on, and because of the broader dissemination of economic knowledge, are beginning to

understand the *facts* of industry. *And we consumers, that is, "the public," will be satisfied if and when we feel sure that we are getting the most possible amount of goods and services for every dollar which we spend.*

XXXI

REDUCING COSTS AND RAISING WAGES THROUGH THE ELIMINATION OF WASTE

The money paid out in wages is a very substantial part of the cost of producing all goods. Until within recent years it was generally supposed that when selling prices decline, the best way to reduce costs was by reducing wages.

The fallacy of this general reasoning has been pointed out repeatedly in the preceding talks. It is the *cost of labor* measured by its *productivity* that determines how high a wage can profitably be paid.

As an evidence of this truth we find that although prices for several years have been holding near a level about 50 per cent higher than pre-war, yet wage rates have during the same period increased to a point which is about 125 per cent higher than pre-war. At the same time record high profits are being made in most industries.

Progressive managers during the last few years have tried to reduce costs in every other manner before attempting to decrease wages. These efforts to reduce costs have been shown by the adoption of such general policies as the following:

1. Building up *greater volume* of output with a view to reducing unit costs;

2. *Simplification* and *standardization* of methods, processes, and output;

3. The careful utilization of *by-products;*

4. The more rapid *turnover* of stocks of goods and accounts receivable, leading to a higher turnover of *investment,* which reduces capital charges;

5. The improvement of the *"load factor"* by securing more even production and avoiding "peaks" and "valleys" in output;

6. The more general adoption of labor policies which reward *speed* and *quality* and penalize waste;

7. The general policy of reducing costs through the *elimination of avoidable waste* of every sort.

One of the most important developments in modern industry is the concerted effort which

is being made to *eliminate waste.* American industry has always been characterized by enormous wastes. Because of the plentifulness of natural resources and the over-abundant supply of raw materials needed in the productive process, little thought has until recently been given to the possibilities of decreasing costs and reducing prices to the consumer through the avoidance of those wastes which might be easily prevented.

About 12 years ago some intensive attention was given for almost the first time to the possibilities of conserving our natural resources. Not until the war-time emergencies were upon us, however, was much attention given to the general problem of the conservation of man power and capital by means of a better coördination of effort throughout the various stages in the production of goods.

Some of the noticeable wastes in industry during the past may be generally classified as follows:

1. Wastes in *investment,* resulting from over-development and over-extension of fixed assets, and from the non-utilization or ineffective utilization of the equipment thus provided.

2. The wastes of *material,* both at the plant itself and before the raw materials are brought to the factory, are appalling. Millions of dollars annually are wasted in our coal fields, oil field, metal mines, and forests.

3. The annual waste of *man power* is no less appalling, due to unemployment, strikes, frequent labor turnover, disease, accident, and occupational misfits.

4. The waste of *time* through delays and the misapplication of energy is also excessive.

Not only in the manufacturing processes, but even more in the field of distribution the easily preventable losses which constantly occur have added a heavy burden to the price of goods, which the ultimate consumer must pay. Particularly in the case of raw foods of all sorts, the losses through breakage, freezing, spoiling, and general deterioration, amount probably to a billion dollars or more each year. Also, American people probably waste by way of the garbage can no less than one billion dollars annually.

In the report made by the Committee on the "Elimination of Waste in Industry" under Secretary Hoover's direction, it was stated that

most of the responsibility for industrial wastes can be attributed to the management itself rather than to labor or to other causes.

The following general recommendations regarding the responsibilities of management are summed up from this report:

1. Improvement of organization and effective control through the development of more careful methods of planning.
2. The control of production with a view to shortening the total time of production.
3. A balancing of productive capacity and demand for goods.
4. The development of purchasing schedules.
5. The elimination of cancellations and curtailment of returns.
6. Correlation of production schedules with sales policies.
7. More adequate inspection of factory equipment, material, and labor.
8. The constant maintenance of plant and equipment in first-class working condition.
9. The adoption of uniform cost-accounting methods.
10. The adoption of equitable methods of wage payment which will ensure a proper rela-

tionship between efforts put forth and results achieved.

11. Greater standardization of product.

12. Standardization of materials which will result in fewer kinds, sizes, and classes.

13. Standardization of equipment so as to permit the widest interchangeability and maximum usefulness.

14. Standardization of performance so that actual performance can be constantly compared with the standard set up.

15. More careful selecting and maintenance of workers.

16. The prevention of industrial accidents.

17. The extension of industrial research both in the individual plant and by trade associations.

During the five years which have elapsed since this report was issued, great strides have been taken by management in improving the situation. The results are shown by the fact that we can conservatively estimate that the volume of *production* per factory wage-earner has on the average been increased at least one-third over pre-war, and in many cases by a much

greater amount. This accounts for the extraordinarily high standard of living, which practically all workers enjoy at the present time.

However, perfection has by no means been reached. The American people have been, are, and perhaps for a long time will be, a nation of wasters. For many years to come it will be an important task of management to learn, and to teach employees and the public that in the long run the surest way to have money and prosperity is to *save* and *refrain from waste*, both in public and in private enterprise.

XXXII

THE ROCKY BUSINESS ROAD

According to an old Arabian legend, a camel was once asked by its master whether it liked best to travel up to the hilltops or down into the valleys. The camel replied that it preferred the long level route over the plains, and that it hoped the road was still open.

In the fields of business, sagacious leaders likewise show a preference for the smooth and level road. In recent years they have discovered that the path over the tallest peaks of inflation invariably leads downward into the deepest valleys of depression.

For at least a century business in this country has been undergoing recurrent swings from prosperity to hard times and back again. These alternations of fat years with lean years have long been matters of common observation, but it is only recently that they have been subjected to really scientific investigation and analysis, and the results so far obtained have

already proved useful in many lines of business.

The term *"business cycle"* is now employed to designate these periodic swings in business activity. The typical cycle passes through four distinct stages.

We may begin our description with the *boom,* or *prosperity,* stage. This is characterized by growing confidence among business men as sales multiply and profits exceed expectations. In this period production increases, unemployment is reduced, wages advance, bank loans expand, and prices rise.

Every boom period, however, carries the germ of its own destruction. Merchants and manufacturers lay in heavy stocks in order to forestall a further advance in prices. This sudden increase in demand of itself forces prices upward. It also creates a condition of apparent scarcity, and causes buyers to place duplicate orders at several establishments from fear that they will not be able otherwise to obtain their full requirements. The result is a fictitious business activity, which sends prices still higher.

Meanwhile, with living costs advancing be-

cause of these higher prices, people tend to become restless and less efficient, and demand higher wages. As employers are bidding against one another for labor as well as for commodities, the workers get their increase. This in turn adds to production costs, and prices must again be marked up. The outcome is a "vicious circle" of rising production costs and prices.

To carry on business under these conditions requires more money and more credit than were needed before the boom began. The banks lend freely at first, but eventually their cash reserves are so reduced that they are forced to protect them from further depletion by raising their interest rates.

The first effect of this is usually a sharp decline in security prices. The cycle has now entered its second stage—that of *crisis,* or *recession.* The tightening of credit forces holders of goods to throw their stocks on the market at substantial concessions. Commodity prices follow securities downward. Values of inventories shrink rapidly, and profits—on paper—disappear. Orders for goods are cancelled; factories reduce their operations or shut

down and frequently there are bread-lines in the cities.

This acute stage passes in a few weeks, but it is followed by a longer period in which general business remains slack, prices go gradually lower, and unemployment continues to be a problem. This is the third, or *depression,* stage of the cycle. How long it will last will depend somewhat on the character of the preceding boom.

Eventually, however, the bottom of the "trough of depression" is reached, and signs that business is picking up a bit begin to multiply. Consumers eventually must buy new clothes and shoes; merchants must finally replenish their stocks, and so factories begin to get new orders. At the same time debts are being slowly liquidated and money again becomes easy, thus encouraging new business ventures. Labor and management become more efficient than in the boom period, and thus make profits possible in spite of declining prices.

In this way the fourth and last stage of the cycle—that of *revival,* or "recovery," is gradually ushered in. Confidence again appears, prices become firmer, factories increase their

output and their pay rolls, and the revival may finally gain such headway that another boom develops. One business cycle has then run its course, and a new one has begun.

There is nothing mysterious about these fluctuations. The cycle is but one of the manifestations of rhythm that are found in all human activities. Yet evil sometimes comes when human impulses are allowed too free a rein. The business cycle uncontrolled may entail heavy losses on industry and bring on all the social and economic ills incident to widespread unemployment.

These ups and downs cannot be wholly eliminated, nor would this be desirable if it were practicable. Some variation is infinitely preferable to the deal level of monotony. At the same time, however, much can be done toward reducing the steepness of the grades, so that business may travel on a safer and smoother road.

A number of business concerns that had learned the lesson of the cycle before 1920 managed to pass through the crisis of that year with relatively slight difficulty. When they saw bank loans expanding, deposits declining, interest rates advancing, prices of commodities and se-

curities soaring, and speculation growing constantly more active, they realized that a reaction was near at hand and began to set their houses in order. They reduced their stocks and forward purchases to a minimum, pushed collections vigorously, and adopted a more conservative credit policy. As a result, when the crisis came they had no inflated inventories to write down, no heavy cancellations of orders, and practically no "frozen credits."

What these few concerns did others could also have done, if they had been more familiar with the cyclical phenomena of business and had not allowed themselves to be swept off their feet by the "boom psychology" of the post-armistice period. A wider knowledge and understanding of these business tendencies will go far in mitigating the undesirable effects of the sharp cyclical fluctuations. It has been estimated that the depression of 1920-21 cost the country six billion dollars. It is worth while, then, to do something that will make the road smoother and easier for all of us.

XXXIII

SMOOTHING THE BUSINESS ROAD

In the backwoods of Missouri some years ago the farmers were suffering from a severe drouth. They finally decided to assemble at the cross-roads church and ask the parson to pray for rain. The reverend gentleman prayed long, loud, and fervently for the floodgates of Heaven to be opened. Then, as he wound up his prayer, it occurred to him that perhaps he had made his petition a little too strong and that he had better hedge a bit. So he concluded in this fashion:

"And now, O Lord, when thou sendest rain, we pray thee not to give us a gully-washer; but send us, we beseech thee, one of the *dreezly-drazzly* kind!"

This repugnance toward overdoing a good thing will evoke much sympathy in the breasts of enlightened business men. They still have vivid memories of the "gully-washer" of 1920-1921, and they know that it came because the

business community had been too much disposed to overdo its prosperity.

The main features of these repeated swings from boom to depression during the past century have been described in the preceding talk. They are of vital concern, not only to the man who is in business for himself, but also to every one who works for wages or a salary. Every period of depression brings unemployment, part-time, and reduced pay to thousands of able and willing workers through no fault of their own or of the individual employer.

For many years these recurrent periods of "hard times" were taken for granted and regarded as something beyond human control, but careful study of the problem by business men and economists has convinced them that much can be done to smooth the road and reduce the waste and suffering that come in times of depression.

In 1921 when there was widespread unemployment a special committee was appointed by President Harding to investigate the possibility of reducing the fluctuations in trade and industry and thereby mitigating the evil of unemployment. Some of the practicable recommen-

dations of the committee toward this end are here indicated:

1. In order to stabilize trade and industry, business men should have more adequate information with regard to the trend of production and consumption than has been available to them in the past. Had better information of this character been available in 1920, many of the troubles of that year due to over-production and excessive inventories might have been avoided.

2. The information thus gathered needs not only to be as nearly up-to-the-minute as possible, but it should be presented in a form that will permit comparisons between different industries and different periods. In order to secure such uniformity it is desirable that the work of compilation should be centered in a small number of organizations.

3. It is necessary not only to have facts and figures, but also to know how to use them. It is a trite but true saying that "figures don't lie, but liars will figure." There is need, then, of trained men to study, analyze, and interpret the data, and to point out probable trends in production, stocks, prices, and wages, so that the

heads of business organizations will have something more than hearsay and "hunches" on which to base their decisions.

4. Again, the individual banker can do much to smooth the business road for his customers and their employees. He is in a position to see good or bad signs on the horizon that are not discernible to the average business man. He knows when credits are over-expanded and when the time has arrived for his clients to put their houses in readiness for a reaction.

5. Closely related to the work of the local banker in the matter of credit control is that of the Federal Reserve System, which is the great agency for the supply of credit beyond the immediate resources of the local banks. The wise exercise of its control over credit may at times prove of great value also in preventing extreme fluctuations in trade and industry.

6. Business men themselves can make the road easier for everybody by planning their future operations with reference to the various stages of the business cycle. They can arrange their buying and production progress so that inventories will be at a minimum when prices are likely to begin their descent from the peak.

They can also use part of their labor in a slack period in making up staple goods for stock.

7. Another practicable method for smoothing the road is through the postponement of construction work by the national and local governments, railways, public utilities, and private business until dull periods when plenty of labor is available. This will reduce costs of construction and reduce unemployment.

Different policies must be followed by different industries. However, it is probable that in the future, as a result of better planning in business, which in turn results from the increasing use of systematic knowledge in all industrial operations, fluctuations will be less pronounced than in the past.

It is particularly important that each business concern shall build up ample reserves in years of prosperity. This conservative policy in itself goes far to prevent over-expansion, which is inevitably followed by severe contraction.

In like manner, the individual worker who when his earnings are ample makes a particular effort to save and invest his surplus, thereby protects himself against disappointments in the

future, and helps to stabilize the course of business.

Goods would not be produced, factories would not be operated unless in the last analysis we as individuals were consuming those goods. *If our purchases and consumption of goods were evenly distributed at all times, and if an ample margin were always kept between income and expenses, there could be no violent fluctuations in business.*

XXXIV

COMMON SENSE IN MANAGEMENT

Theorists have written for centuries about the relations which supposedly exist between "capital" on the one hand and "labor" on the other. For a long period many false notions were developed regarding the supposed *conflict of interests* between employers and employees. Probably more harm in industry has come from wrong-headed ideas on this question, and from unwarranted class distinctions resulting therefrom, than from any other cause.

Management in the past should be held largely responsible for permitting the development of any antagonistic spirit on the part of labor.

It is peculiarly the job of management to explain to workers and to the public the principles which govern business activity, and constantly to show what right methods, practices, and relationships in industry should be, before workers become dissatisfied and distrustful, and

before irresponsible propagandists for their own ends misinterpret the facts.

Until recent years the managers of many industries may fairly be charged with having too frequently neglected to give the same scientific study to men that they have given to materials and machines.

This is a natural result of the rapid development of industrial processes. Attention is almost inevitably given to concrete things before psychological considerations are studied. Yet, progressive management must draw more and more upon some of the simple facts of human psychology.

The solution of the so-called "labor problems" does not lie in the multiplication of complicated "machinery" for labor and personnel administration. Such things as "works councils," employee representation, profit-sharing, welfare work—all have their uses, but none are panaceas.

There is no scheme which can possibly take the place of *mutual understanding* of the problems of industry, based on an honest attempt to get the other fellow's point of view. Practically all of the difficulties which have arisen in

the past have been due to misunderstandings, resulting from *ignorance* on the one hand, and from a *lack of sympathy* on the other.

Yet, it should be perfectly clear that management is only another kind of labor—another "craft" if you will. The final result can be achieved—that is, the production of goods at the lowest price consistent with desired quality and service—only by the closest and constant *coöperation of all* in the common cause.

A large part of the time of high-salaried business executives at present is being given to these *human problems* in industry, a proper understanding of which is probably the most important factor in our future industrial progress.

One of the outstanding leaders in business on its more human side has recently defined the personnel policy of his great company in the following terms:

"The Personnel Policy of the —— Company seeks to bring out and develop the best qualities in each individual and to find ways and means to weld and integrate the individual performance of each into the competent and har-

monious team-playing coöperation upon which any successful group accomplishment depends.

"We are dealing with a state of mind, with the attitude of each individual toward his job, toward the other individuals in the organization, and toward the public.

"The individual's attitude toward the job can be right only if he has the proper sense of his relationship to the Company. The relationship that he must feel is that he is a part of it—not a servant of it nor simply an independent contractor with it. If this sense of relationship toward the Company is the true one, it follows that the sense of relationship between individual employees must be that of co-workers, and this relationship is not affected by the fact that one individual may belong to the managing group and the other to the general forces.

"The three fundamental lines of action through which we may hope to establish this sense of relationship may be stated as follows:

"1. Remove from every company, department and office every practice, policy, custom, routine, phrase and tradition which is inconsistent with each individual's feeling that he is a

part of the enterprise, or which harks back to the old master and servant conception, or to the conception that a contract is the only tie between the individual employee and the company.

"2. Develop and encourage every proper practice, policy, custom, routine, phrase and tradition which will affirmatively tend to make each one feel that he is a part of the business, and therefore ready and anxious to assume all the responsibilities, both individual and joint, as well as to enjoy the privileges and compensations that go with that relationship.

"3. Develop ways and means and contacts by which to discover the individuals or groups who have not reached the point of feeling that they are anything more than servants, hired men or contractors, and direct special and intensive effort toward finding ways and means of making them see, as thousands upon thousands are already seeing, that employment in the —— Company presents an infinitely more satisfactory and self-respecting status if they will only accept it and live it.

"Such a policy wisely carried out will tend to develop the best that is in each individual,

and to weld that 'best' into effective coöperation or team play in the business of which we all are a part."

Another great company recently outlined some of its aims in employee relations in the following summary for the use of supervisory employees:

"Right relations with employees is one of the fundamental elements in the success of the Company, and must be founded upon the conviction of every employee that the policies of the Company are based upon a spirit of justice in its dealings with every person with whom it comes in contact.

"It is the policy:—

"1. *To pay all employees adequately for services rendered.*

"When the individual records of all employees are reviewed periodically, it is your duty to see that their rates of pay are adjusted fairly. Compensation should be based upon ability, responsibility, length of service and capacity for growth, giving due consideration to cost of living, general business conditions and wages paid by other concerns in the same territory for comparable work.

"2. *To maintain reasonable hours of work and safe working conditions.*

"Special attention must be paid to conserving the well-being of employees in equipping and maintaining shops, warehouses, offices, restaurants and rest rooms and other facilities for comfort and convenience. Careful consideration must be given to hours of work, vacations, medical service and payment in case of absence.

"3. *To provide continuous employment consistent with business conditions.*

"In the management of the business a continuous effort must be made to provide steady work and permanent employment. When reduction in force is unavoidable, consideration should be given to retaining long-service employees. When additions are made to the forces, preference should be given to former employees. Continuity of employees' service records should be guarded.

"4. *To place employees in the kind of work best suited to their abilities.*

"Consideration must be given to placing each employee in the kind of work which offers opportunity for his maximum growth and useful-

ness. Great care should be used in assigning employees to work when they are first employed, and trial should be given on different types of work when necessary.

"5. *To help each individual to progress in the Company's service.*

"When vacancies occur, those already in the Company are entitled to first consideration. Every employee should understand the relation of his work to that of the Company as a whole, and there should be provision for training on the job, variety, and progression of experience. Information and advice should be made available for those wishing to take advantage of outside educational opportunities.

"6. *To accord to each employee the right to discuss freely with executives any matters concerning his or her welfare or the Company's interest.*

"It is your duty to establish the conviction among those whom you direct or with whom you come in contact that sympathetic and unprejudiced consideration will be given to any employee who wishes to discuss with executives and supervisors matters of his or her welfare or the Company's interest.

"7. *To carry on the daily work in a spirit of friendliness.*

"As the Company grows it must be more human—not less so. Discipline, standards and precedents become more necessary with size, but the spirit in which they are administered must be friendly as well as just. Courtesy is as important within the organization as in dealing with outsiders. Inefficiency and indifference cannot be tolerated, but the effort of supervisors must be increasingly directed at building up in every department a loyal and enthusiastic interest in the Company's work."

These suggestions are, after all, nothing more than an honest attempt to apply the *Golden Rule* to business—not in any sentimental sense, but with the clear knowledge that right dealing pays large dividends of a very tangible sort.

It is the spirit with which managerial employees and other employees work together, and not the machinery regulating these relationships, that determines whether they shall all coöperate for the common good.

The development of the right attitude of mind depends primarily upon a correct understanding, by all, of the important principles which apply to our great business of making a living.

XXXV

BALLOTS AND BUNCOMBE

"WHAT's the best way to appeal to audiences?" "First find out what they think about something," answered Senator Sorghum, "and then tell 'em they're perfectly right."

The best way to make an average political audience enthusiastic is to encourage them in their pet prejudices, denounce all the activities and principles of the opposing party, and show that the country can be prosperous only if the speaker's party is in power.

The prize requisite of political ammunition is that it must go off with a *bang*. In an election year, therefore, it is particularly unwise to take too seriously many of the statements on economic questions which are made by political leaders.

"We believe that the achievement of the Republican Administration in reducing taxation by $1,250,000,000 per annum; reducing of the public debt by $2,432,000,000; installing a budget system; reducing the public expenditures

from $5,500,000,000 per annum to approximately $3,400,000,000 per annum, thus reducing the ordinary expenditures of the Government to substantially a pre-war basis, and the complete restoring of public credit; the payment or refunding of $7,500,000,000 of public obligations without disturbance of credit or industry—all during the short period of three years—presents a record unsurpassed in the history of public finance."

Such is the statement made by the party in power in 1924 regarding its achievements.

"Never before in our history has the Government been so tainted by corruption and never has an administration so utterly failed. The nation has been appalled by the revelations of political depravity which have characterized the conduct of public affairs."

Such is the picture painted by the party which wished to be in power.

The major political parties in the United States have for many years clashed on the questions of *tariff* and *taxation*. The various parties have frequently adopted a wholly unjustifiable position, in the economic sense, with respect to government control of credit and bank-

ing, the operation of our merchant marine, and government ownership.

In 1924 one party platform contained the following statement:

"Without the strict maintenance of the tariff principle, our farmers will need always to compete with cheap land and cheap labor abroad and with lower standards of living."

It was also stated that "the prices of many agricultural commodities are above the war price level by reason of direct tariff protection,"—the laws of supply and demand being completely ignored!

On the other hand, the party not now in power made the following statement regarding the tariff:

"The Fordney-McCumber Tariff Act is the most unjust, unscientific, and dishonest tariff tax measure ever enacted in our history. It is class legislation, which defrauds all the people for the benefit of a few; it heavily increases the cost of living, penalizes agriculture, corrupts the Government, fosters paternalism, and, in the long run, does not benefit the very interests for which it was enacted."

Obviously, the truth regarding the tariff lies

somewhere between these two extremes. As a matter of fact, the only farm product selling at the time (1924) at approximately war-time prices was cotton, and *cotton is on the free list!* The high price of this staple was not due to the tariff but to the *boll weevil.*

No tariff can raise the prices of those commodities which are produced in excess of domestic needs. Such goods have their prices made in the world market under the law of supply and demand.

It is economically unsound to believe that this country will necessarily suffer from the low-paid labor of foreign countries, provided we do not have heavy tariff restrictions. This fallacy is an old one.

It is not the amount of money that labor is paid which determines the cost and selling prices of goods. Rather it is the efficiency with which laborers work that determines in the long run the wage which they can be paid and the manufacturing cost of those commodities which they make.

No sweeping statement can be made regarding the tariff. Different industries are affected in different manners by such restrictions

against the free exchange of goods. As a rule a tariff high enough to protect an inefficiently operated industry merely helps to keep the price of that commodity higher than it would be under free trade. An industry which operates more efficiently than similar industries in foreign countries needs no protection. Yet, it should be noted that when an industry has been developed under a protective tariff, any sudden change may be disastrous to the particular industry and may involve other industries as well.

The following statement, however, is absolutely sound:

From an economic point of view, every nation and the people of every nation should always be employed in that kind of work which they can carry on most effectively as compared with other people or nations.

Political and short-time considerations frequently make it impossible to carry out such a principle at a given time. However, if the rule could be followed, it is probable that the standard of living in the world would be considerably higher than it is at the present time.

Some of our politicians believe that practi-

cally all the *taxes* of the country could and should be paid by the so-called wealthy classes and by large corporations. To anyone who is familiar with the economic phenomenon of the "shifting and incidence of taxation" the impossibility of such a program is apparent.

A country can be prosperous only if there is year after year a *surplus* of income which can be devoted directly to the further production of goods to be enjoyed by all. Any type of taxation which would confiscate this surplus or dissipate it through extravagant government expenditures would merely reduce the amount of production and the comforts which all of us would like to have.

Industry at the present time is highly complex, but one thing is very certain: the civilized world today exists and can exist only through the *coöperative action of individuals.* No particular group of individuals can be singled out for special treatment without in some way involving all the rest.

Again, we find both of the major political parties trying to blame each other for the *crisis and depression of 1920-1921,* while one of the

younger parties blames both the old ones for this industrial calamity. However, an elementary knowledge of economics is sufficient to convince anyone that this crisis was a world-wide phenomenon following the Great War.

Similar crises have come in the wake of all great wars. Credit was not restricted in the United States for political reasons, as has been frequently charged, and our agricultural population has no real grievance on this score. On the contrary, credit was for a long time too liberally extended to all types of industries, the farming industry included.

As a result of this liberality, unwarranted ventures were launched, there was over-speculation in agricultural land, and the inevitable retribution which follows shortsightedness and unwise policies of expansion was shared by all parts of the country alike.

All three parties in 1924 called for a merchant marine, built, owned, and manned by Americans. Much enthusiasm can be called forth from any audience as the speaker pictures the American flag waving in every port of the world.

It is certainly a splendid thing for the United States to have a *merchant marine* controlled by Americans; but it is a very hoary fallacy that whenever we hire a foreigner to do anything we injure the welfare of our own country. Shipping in late years has, for sound economic reasons, not proved a profitable business for us. If American capital and labor can find better employment in some other line of industry, it will obviously be to our advantage to hire foreign ships to carry our goods while we devote our attention to those pursuits in which we are most efficient.

Notwithstanding the unsatisfactory experience, from a financial and social point of view, which most countries have had with *public ownership* on an extensive scale, some of our politicians are still demanding government ownership of railroads, and other industries. No doubt many of the present owners of such industries might be glad to sell out to the government at a reasonable price. However, to one who knows something about the financial problems of industry and the possibilities for waste as a result of political interference. it is rather

appalling to contemplate the enormous additional burdens which might be imposed upon us taxpayers and hard workers if our politicians should be given any more things to play with.

Many other fallacies and mistaken notions might be mentioned. The soil of 1924 was particularly fertile in this regard. The next election will bring forth its own crop—mostly old stuff! However, we find that economic fallacies have been supported throughout the world's history by perfectly well-meaning people. Somehow or other the world has survived and has made progress. Such is peculiarly the case with our own country.

The airing of differences of opinion helps to bring about the solution to many of our most important problems of living. No matter which party comes into power, it should be remembered that the "bark" is always worse than the "bite." The Republic is not to be despaired of! *Economic laws will have their way.*

XXXVI

NEW IDEAS APPLIED TO OLD PROBLEMS—THE SECRET OF INDUSTRIAL PROGRESS

In the foreword of the report of the Federated American Engineering Societies on *Waste in Industry,* Secretary Hoover a few years ago made the following statement:

"We have probably the highest ingenuity and efficiency in the operation of our industries of any nation. Yet our industrial machine is far from perfect. The wastes from unemployment during depressions; from speculation and overproduction in booms; from labor turnover; from labor conflicts; from intermittent failure of transportation of supplies of fuel and power; from excessive seasonal operation; from lack of standardization; from loss in our processes and materials—all combine to represent a huge deduction from the goods and services that we might all enjoy if we could do a better job of it."

A careful study of economic history reveals surprisingly few new "problems." From the beginning of time the primary problem of the average man, consciously or unconsciously, has been to secure the food and shelter necessary to his comfort. All our modern factory processes have been developed as a result of our attempts to find easier and more effective means of satisfying our most primitive wants, so that we can have more time for developing our higher wants and aesthetic tastes.

Practically every step in the march from savagery to twentieth-century civilization has been made possible by the application of *new ideas*—which usually result from an analysis of the experience of the past—to the age-old problem of "getting a living." All recent attempts to eliminate waste and to standardize and simplify our factory processes are in reality directed toward the same end.

Suppose we note a simple example. From the days of Adam men have slaughtered and eaten animals. No modern industry has a more ancient history than that of Slaughtering and Meat Packing. Our American packing companies have frequently pointed with pride to the

fact that the utilization of by-products, which means the *saving of waste,* has made it possible to sell meat to the consumer at a lower price per pound than is actually paid by the packer to the cattle raiser. This is due to the application of *modern ideas* to the old problems of the industry.

Through rapid turnover of inventory, also, made possible by modern factory and refrigerating methods, a fair return on the investment can be made through a very narrow margin of profit per dollar of goods sold—not more than 2 cents per dollar. More new ideas at work in an old business!

But note this! Not long ago the president of one of the largest packing companies in the United States made the following statement:

"For so many years we have indulged in self-praise over the advantages of our utilization of by-products that we have come to take our efficiency for granted.

"We have pointed out what a small proportion of the dollar is required for our operation, too many times without considering whether we could still further narrow this margin.

"Yet conditions in the world throughout

which we are trading are more likely than ever before to force us into *new ideas*. . . .

"The survival of the American meat-packing industry . . . is dependent on our maintaining the most receptive attitude we can toward *new ideas* and efficiencies of operation and distribution."

Similar statements would apply with equal force to most other industries in the United States—probably none is operating at anything like the maximum of efficiency. As conditions change, present high efficiency soon becomes future inefficiency.

The older and more powerful we become, the greater the need for *vision* and *new ideas,* which will enable us to do an increasingly better job at the same or lower costs.

There are few new things under the sun. No one man unaided can contribute much to the development of industry.

But there are new ways of looking at old problems and new combinations of old facts, which result in inventions and improvements of incalculable value to all of us.

Our present high standards of living have

arisen out of the struggles and disappointments of the past and the new ideas which have gradually resulted therefrom.

Little ideas scientifically and persistently applied make big evolutions in industry.

The fortunes of the future will be built upon the wastes and inefficiencies of the past.

Without the constant application of new ideas to our old problems our very civilization would soon decay.

XXXVII

BUSINESS MEANS CREATIVE SERVICE

If the average man were asked why he is in business, he might reply, "to make a living," "to make profits," or "because I like the work."

Whatever his reply would be, the fact remains that one of the most obvious and immediate reasons for being in business is to make "*profits*"—without which no undertaking can long be carried on.

However, it is worth while to look a little deeper into the question. What is the important underlying consideration which in the long run determines whether a business shall make profits, and whether it shall survive?

As stated in the beginning of these talks, we are growing more and more dependent upon each other. Therefore, in order to improve our standard of living, we must constantly render more *service* to our fellow men. Just what does this mean in our industrial life?

In the Middle Ages, each community was self-sufficient. It raised and made everything it needed. Today each group and community is dependent upon others. We specialize.

Some of us are traders. Some take up agriculture. Others enter professional service, and still others go into the manufacturing industries. At present, localities also specialize. Pittsburgh makes steel; Detroit, automobiles; Troy, collars; Chicago, meat products.

In this manner, each of us is helping to create the things and services with which to satisfy the wants of ourselves and others, and then we exchange among ourselves.

Coffee on the hillside of São Paulo is worthless to us in this country, but we will pay for it in our own neighborhood. Wool on a sheep's back in Australia is of more use to the sheep than to man, but when sheared, woven into cloth, and made into garments, it is essential to our comfort and well-being. Iron ore as found in the ground is only rusty-colored stone and of no value to the ordinary individual; but when it is mined, smelted, converted into steel, and made into an automobile, many of us consider it worth a part of our income.

All animals, except man, are born fully equipped into their natural environment. Man lives in an artificial environment. He clothes himself against the heat and cold, and builds houses to protect himself from the elements. He eats specially prepared food. Nothing seems to be in exactly the form or place in which he wants it. He has many wants which can be satisfied only by things from the remote parts of the world. Business changes these things into the shapes and transports them to the places where they will be of the most use.

Some wants are for injurious things, such as opium and intoxicants. These products were formerly produced in large quantities to satisfy the unnatural cravings for them, but public opinion has stepped in to restrain the efforts of business along these lines.

In a way, it is incorrect to speak of industry producing so much goods, of the railways producing so much transportation, of factory workers producing so much service. All of these groups are really creating *satisfactions for wants,* within the limits set up by society.

Business is essentially creative. It takes goods from places where they are so abundant

as to be almost worthless and delivers them where they are scarce and can command a premium. It stores up the surplus food of summer for our use during the scarcity of winter; and brings all manufactured goods to our door at the time when we want them.

Business changes form, annihilates space, conquers time.

Business, therefore, is not an end in itself. It is the servant of human wants. *The most successful business men always keep this idea of service in mind.*

XXXVIII

FOUNDATIONS OF BUSINESS

As has been pointed out in previous talks, business must make a steady profit in order to give continuous employment to its workers at good wages. Profits can be assured only if a real service is rendered to the buying public.

While the *immediate* aim is individual or corporate gain—a very practical matter—yet ultimately the securing of this gain depends upon considerations which at first may seem to be psychological or ethical rather than purely economic.

It is almost literally true that the success of a business depends upon practically the same qualities and considerations which make an individual really successful—a few simple traits and qualifications which in the stress of the game of business and of life it is easy to forget or overlook, but which are perfectly logical and clear when we take time to reflect.

These considerations have been indicated directly and indirectly throughout this series of

talks. Let us here sum up the matter very briefly. We can make an almost categorical statement to the following effect:

In the long run in any competitive industry that business will be most successful—that is, make the most satisfactory profits—which furnishes its product at the lowest price consistent with the best quality and service demanded by its market.

Granting that any business has an economic reason for existence—that is, it must fill a *real want*—satisfactory profits result from the proper balancing of the factors in production ("efficient management"), which in effect means a proper balancing of considerations affecting *price, quality,* and *service.* For each of these to be satisfactory involves in turn, either directly or indirectly, several other basic considerations:

Price.—To provide the lowest price consistent with satisfactory quality and service requires first of all that there be real economy and efficiency in management with respect to the utilization of *materials, capital, labor* and *time.*

The securing of such efficiency seems to depend upon such qualities as the following on the part of managerial employees and others:

(1) *Knowledge* based on science; (2) *vision*, closely related to "open-mindedness"; (3) *judgment*, which is dependent upon "applied knowledge"; (4) *courage*, which leads to the proper execution of policies outlined; (5) *fair dealing*, which may also be defined as "generous justice"; (6) *integrity*, which is really a part of the other qualities referred to.

Quality.—The quality of goods and service rendered depends upon good "workmanship." Upon analysis it will be found that in order to insure "quality," practically the same qualifications are required on the part of the individual worker as have just been indicated for management:

1. The employee must display *knowledge* of his art.
2. He must have *skill*, based on knowledge and practice.
3. He must display *judgment* on his particular job.
4. He must show a *readiness to improve*—

that is, he must have vision and open-mindedness.

5. His attitude toward his fellow workmen and toward the business for which he works must be good; and this depends largely upon *fair dealing* throughout the company.

With these characteristics, "honesty" or "integrity" can almost be assumed.

Service.—Service is the directly human side of business. High quality of service obviously depends upon "fair dealing" with customers, which means also *fair dealing and close coöperation* between employees and suppliers. This in turn seems to depend largely upon the basic qualifications to which we have already referred —*judgment, courage,* and *vision.* A high degree of vision in rendering service seems in turn to spring from *knowledge, sympathy,* and *open-mindedness—a real understanding* of the problems of those who receive the service and of those who render the service.

In applying these broad principles, perhaps one general qualification should be made. In the above statement we used advisedly the words "the lowest price consistent with the best quality and service demanded by its market,"

because not all concerns in a particular field of business activity try to "sell" or need to "sell" to the same market:

1. Some concerns sell primarily "quality," and give relatively little attention to service or price. An example would be the maker of rare and special goods, frequently to the customer's order, in small quantities.

2. Some concerns sell primarily "service" rather than "quality" or "price." Perhaps a good example would be the average department store.

3. Other concerns sell primarily "price," without much regard to quality or service. A good example of this type would be the 5-and-10-cent chain stores.

Each concern, therefore, must be judged more or less by the market which it proposes to serve. With this qualification, the above statement contains the "meat" of the problem.

The management of a successful business is increasingly dependent upon *knowledge* and *science* resulting from the analysis of past experience. There must be *vision* or "constructive imagination," so that new tendencies can be foreseen well in advance and new ideas

can be applied to the material and human problems in business. Those who would lead must have *judgment* which will enable them to make right decisions, and *courage* to put their conclusions into action.

All of these qualifications seem to be knit together by the need for *common honesty,* and their practical application is almost literally summed up in the *Golden Rule.*

XXXIX

BUSINESS ETHICS

Not many years ago too many business concerns devoted most of their attention primarily to the immediate problem of *making money*—frequently without much consideration of the broader social implications of industrial activity. At the time when knowledge regarding business operations and the principles of business was not widely diffused, it was natural to ignore the other fellow.

Business methods and conditions in general were probably never quite so bad as they have sometimes been painted. However, the "public be damned" attitude, to the extent that it was noticeable in some organizations in earlier years, was *based upon ignorance.*

Further, while the general price level was steadily rising over the quarter century preceding 1920, and while new industries, made possible by electrical development, were springing up almost over-night, it was comparatively

easy for a man of average ability to make money in business. The very tide of industrial progress tended to cover up and minimize many mistakes in judgment, which during a period of falling prices or during a period of slow industrial growth would have been sufficient to wreck the business.

During the Great War and immediately thereafter the force of circumstances taught us that there were great wastes and inefficiencies in production, resulting from improper utilization of materials, man-power, and plant investment.

As pointed out in a previous talk, great strides have been made within the last few years in remedying these difficulties. The drop in the price level since 1920 has led to much keener competition, and has made it necessary for industry to "clean house." Not only has factory efficiency been vastly improved through simplification, standardization, more careful forward planning, and more intelligent labor administration, but also important economies are being affected in the distribution of goods.

Some of the more pressing problems having to do with materials, machines, bricks, mortar,

and other inanimate things, have been measurably solved. At the present time the attention of business is being directed primarily to the human side of the game—to distribution, service, employee relations, and public relations.

This means that a new point of view is gradually developing in industry, that long-run social considerations are tending to displace some of the questionable and short-sighted policies which used to be the subject of considerable criticism.

Competition is growing keener, but is also being conducted on a much higher plane. Broad social and even ethical considerations are going far to put a *"soul"* into business.

In this connection no better statement can be made of the principles which should guide progressive business during the future than the excellent summary of the *Principles of Business Conduct,* adopted by the Chamber of Commerce of the United States at its twelfth annual meeting in 1924:

"The function of business is to provide for the material needs of mankind, and to increase

the wealth of the world and the value and happiness of life. In order to perform its function it must offer a sufficient opportunity for gain to compensate individuals who assume its risks, but the motives which lead individuals to engage in business are not to be confused with the function of business itself. When business enterprise is successfully carried on with constant and efficient endeavor to reduce the cost of production and distribution, to improve the quality of its products and to give fair treatment to customers, capital, management, and labor, it renders public service of the highest value.

"We believe the expression of principles drawn from these fundamental truths will furnish practical guides for the conduct of business as a whole and for each individual enterprise.

"I. *The Foundation* of business is confidence which springs from integrity, fair dealing, efficient service and mutual benefit.

"II. *The Reward* of business for service rendered is a fair profit plus a safe reserve, commensurate with risks involved and foresight exercised.

"III. *Equitable Consideration* is due in business alike to capital, management, employees, and the public.

"IV. *Knowledge*—thorough and specific—and unceasing study of the facts and forces affecting a business enterprise are essential to a lasting individual success and to efficient service to the public.

"V. *Permanency* and continuity of service are basic aims of business, that knowledge gained may be fully utilized, confidence established, and efficiency increased.

"VI. *Obligations* to itself and society prompt business unceasingly to strive toward continuity of operation, bettering conditions of employment and increasing the efficiency and opportunities of individual employees.

"VII. *Contracts* and undertakings, written or oral, are to be performed in letter and in spirit. Changed conditions do not justify their cancellation without mutual consent.

"VIII. *Representation* of goods and services should be truthfully made and scrupulously fulfilled.

"IX. *Waste* in any form—of capital, labor, services, materials or natural resources—is intolerable and constant effort will be made toward its elimination.

"X. *Excesses* of every nature—inflation of credit, over-expansion, over-buying, over-stimulation of sales—which create artificial conditions and produce crises and depressions are condemned.

"XI. *Unfair Competition,* embracing all acts characterized by bad faith, deception, fraud or oppression, including commercial bribery, is wasteful, despicable, and a public wrong. Business will rely for its success on the excellence of its own service.

"XII. *Controversies* will, where possible, be adjusted by voluntary agreement or impartial arbitration.

"XIII. *Corporate Forms* do not absolve from or alter the moral obligations of individuals. Responsibilities will be as courageously and conscientiously discharged by those acting in representative capacities as when acting for themselves.

"XIV. *Lawful Coöperation* among business

men and in useful business organizations in support of these principles of business conduct is commended.

"XV. *Business* should render restrictive legislation unnecessary through so conducting itself as to deserve and inspire public confidence."

XL

MAKING BUSINESS A PROFESSION

A RECENT vote conducted by one of the nation's greatest business magazines, with a direct circulation of more than 200,000 copies, polled a heavy majority for the "establishment of a scientific or professional spirit as the measure of business," as *the most outstanding human accomplishment of the last twenty-five years.*

In this connection one of our ablest business leaders wrote as follows:

"I am confident that business management can, and will sometime, gain the highest professional character. Both engineering and medicine have staggered through less hopeful stages and have gained high standing in public opinion. There are five tests any activity must meet to be given respect as a profession:

"1. It must require expert knowledge of an intellectual character.

"2. It must employ the fruits of science and the scientific method.

"3. It must be governed by a written or unwritten code of ethics.

"4. In its complex of motives it must include in strong measure the motive of service; financial return cannot be the sole measure of success.

"5. It must be given public, and often legal, recognition."

The foundation of applied science is *knowledge.* Every profession is made possible only after a large body of carefully analyzed facts has been accumulated. This material can then be used constructively in drawing *conclusions* which will guide *action* along the most desirable lines.

A clear understanding of the principles which govern our business activity, either as individuals or as corporations, in the daily struggle of making a living, and if possible of making a profit, is one of the first steps toward making *business a profession.*

The more we eliminate guess work and uncertainty by basing business methods and policies wherever possible upon carefully analyzed facts and clearly stated principles, the more

scientifically we can administer our art. This not only tends to develop the professional spirit in business, but also, as a consequence, raises the plane of business conduct and develops a broader concept of business ethics.

But, as distinct from other professions, nearly every one of us is directly or indirectly engaged in business. This means that we *all* need to know why certain results follow certain causes in our social order and to reflect how, within reasonable limits, these causes can be profitably controlled or modified for the good of all.

As a small contribution in this direction this series of talks has been prepared.

Let us here note briefly some of the numerous agencies which within the past few years have been aiding in the movement. Such influences as the following seem significant:

1. The better schools of business administration and departments of economics in our leading universities have been of much practical assistance in attempting to extend the application of economic principles to business problems, and to deduce from the study of business "cases" the underlying principles involved.

This development is gradually resulting in a more practical attitude on the part of our schools and a more scientific attitude on the part of business men—brought about through personal contacts, publication of business "cases," and the absorption of better-trained men into industry.

2. *Independent research organizations* have contributed many ideas and have stimulated mutually helpful thinking. Some of these organizations are supported by private funds for purely scientific motives. Others are self-supporting, and still others are connected with institutions of learning, such as the numerous "*Bureaus of Business Research*" which have been recently organized in most of our leading universities.

3. Unquestionably, independent *forecasting and statistical services* have helped greatly in directing business thinking along more professional lines, even though some of their forecasts and analyses may have been incorrect. The important function which they perform is to stimulate independent effort on the part of business men and to suggest ideas from a somewhat different angle.

4. A great amount of *research work* has been carried on by a few *large business corporations,* both on engineering and technical subjects, and on questions of economic policy and business administration. The pioneering work done by a few leaders in the field, covering a wide range of subjects, has gradually set a pace for others to follow. There has gradually been an interchange of experience and public discussion of some of the results achieved. This work has had a wide influence in raising business standards.

5. Much fruitful work has been done by various *business organizations and trade associations.* Whether these bodies have been organized by industrial groups or along broader lines, they have within recent years done much to raise the plane of business conduct and to professionalize the methods of doing business.

Leaders in this field are trying to introduce uniform methods of accounting and better budgeting procedure. They are trying to reduce the costs of doing business by eliminating wasteful practices and by stimulating the less well managed concerns through the study

of the methods followed by the best companies in the industry.

Many important industries now have their *trade associations,* which are beginning to be organizations for the real improvement of business, rather than for social pastime and jollification.

It is scarcely necessary to mention the splendid work which has been done by such comprehensive national organizations as the Chamber of Commerce of the United States, the National Association of Credit Men, and the Investment Bankers Association.

In this connection, we should perhaps not overlook the fact that *organizations of employees* have in many instances called the attention of business men to certain shortcomings in management which might not otherwise have been remedied. It should not be forgotten that in the important report on *Wastes in Industry* made by disinterested experts in 1921, a large part of the responsibility for the waste in many industries was attributed to imperfections in management, rather than directly to inefficiency in labor as such.

6. *Professional and semi-professional or-*

ganizations concerned primarily with economic questions and business methods have also exerted an important influence in recent years. These organizations have in their membership both individuals and business concerns, drawn from all parts of the country and from every line of endeavor. The interchange of views through annual meetings and official publications has done much to encourage correct thinking on fundamental problems.

7. In the *magazine field* there have been a number of important publications during recent years which have served as a forum for the exchange of experience and the enunciation of principles applicable to business administration in its varied aspects.

8. Much highly valuable work has been done by *governmental agencies,* both state and national. The Federal Government has been most active in collecting and analyzing useful data and in attempting to make the material directly serviceable to business.

a. The *Federal Reserve Board,* both through the centralization of financial policy and through the publication of economic data prepared by the division of Analysis and Re-

search, has rendered an important service to industry.

The twelve Federal Reserve Banks, also, in their territories are trying by various means to standardize and improve the financial conduct of business.

b. The *Department of Agriculture* has in recent years greatly enlarged its work along economic and scientific lines for the benefit not only of farmers but also of those business men who are interested in the manufacture and distribution of various products of agriculture.

c. The *Department of Labor*—particularly the Bureau of Labor Statistics—has compiled and published invaluable material on prices, wages, and the cost of living throughout the country, both by districts and by industries. The data thus made available are constantly used by business men in planning and forecasting their operations. This work is done in coöperation with the various state bureaus and commissions.

d. Finally, attention should be called particularly to the numerous publications and special studies of the *Department of Commerce,* and the *Bureau of the Census,* which are highly

organized along trade lines. No important phase of business activity which is national in its scope has been neglected by Secretary Hoover in his attempt to improve all business methods and to eliminate waste.

Nor is the aim of this work to extend the powers of the government, but rather to make available *facts* and *principles* on which business decisions can be intelligently based, so that there can be a larger degree of *self-control* by business and a greater measure of freedom from government interference.

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